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LONDON, ONTARIO, APRIL 2, 1914.

No. 1123

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VOL. XLIX.

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tell you how local telephone companies are organized, and give you information showing what they have done for their communities. If you think there is any chance of your township taking up the matter of a municipally-owned system, it will be advantageous to get our advice. We have been actively identified in the control of the contro fied in the starting of the majority of municipal systems, and are in a position to supply very valuable information.

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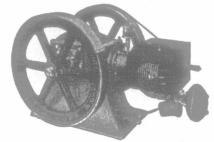
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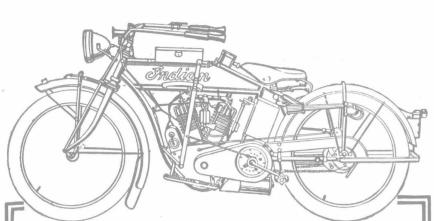
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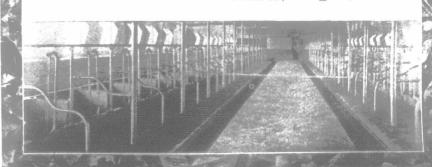
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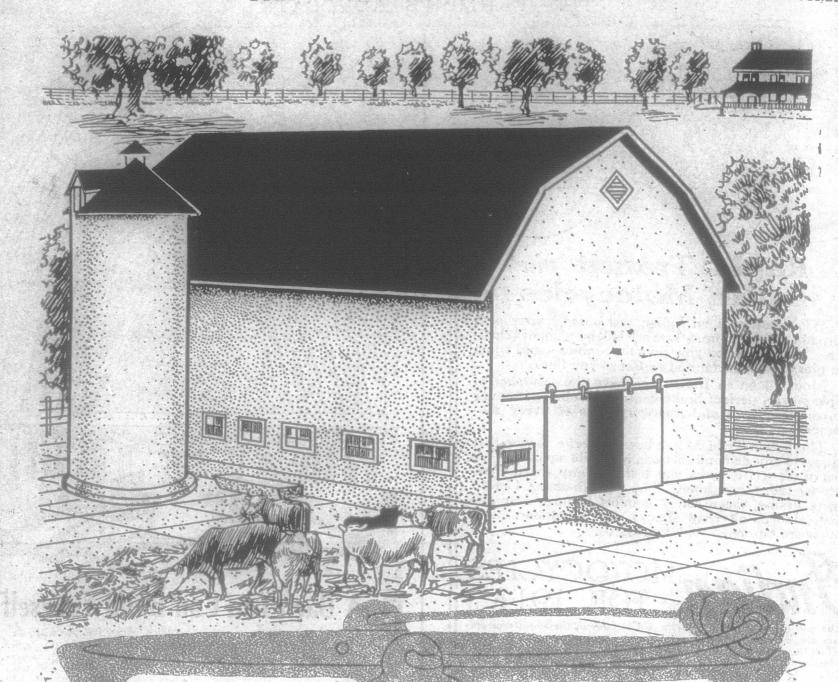
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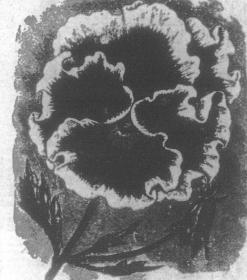
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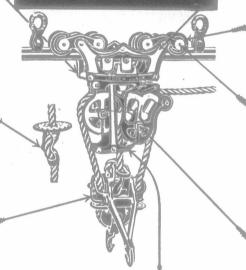
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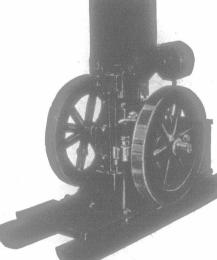
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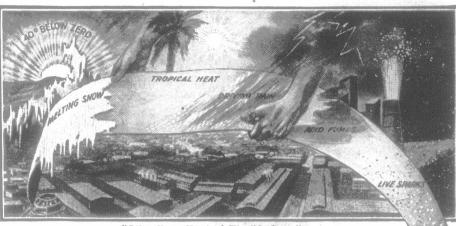
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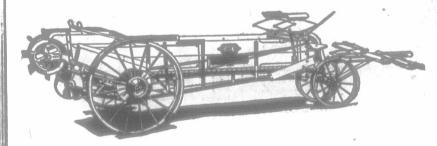
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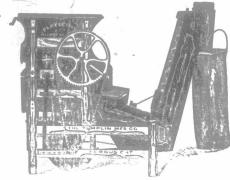
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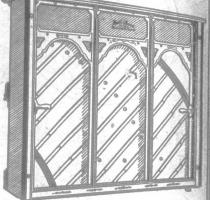
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VOL. XLIX.

## **EDITORIAL**

Keep the light of publicity turned on, and trust the people.

Farming is too big a calling to be laughed at, and the jeers of the town business men are giving place to more merited regard.

Keep the copy of the spray calendar published in this week's issue for reference, and spray as directed therein, if largest returns are desired from the orchard.

The township of Waterloo in Waterloo County, Ontario, is a good example of the successful operation of the municipal telephone system. This system is worthy of the study of those interested in telephones for the public welfare.

When one listens to the discussions which come up at gatherings of men interested in agriculture, he is more than ever convinced that the statement that twelve men form a committee but one moulds its thought and action is true.

It pays to buy in large quantities. Farmers' clubs and all the local farmers' organizations should keep this in mind in making all necessary purchases for their farms. Buy together and sell together, and get the most out of the year's operations.

The business end of the farmer's calling is just as important as the labor end, although in the past it has not been given the prominence which it deserved. Scarcity of labor has been responsible to some extent for this lack of the study of business principles.

Farmers are accused by one of their number, who has made a success of his own operations, as lacking in self-reliance. We say the farmer is independent, but too often he lets someone else attend to the essential business concerning his operations which he himself should do.

Every Agriculturist should do his part in the condemnation of the renewal of bounties or bonuses on iron and steel, which are being asked for by the interests engaged in the operation of iron and steel plants. There are no economic grounds for the passing of legislation granting these. Write your member expressing your views.

Weather conditions were such last fall that considerable soft corn was produced. This makes it necessary to take double precautions in testing this seed. If possible place it in damp sawdust or sand, and watch the growth of the young corn plants. If many of them are weakly and spindly the seed is not as valuable as that of well-matured corn.

It often occurs that farmers' gatherings start from a half hour to an hour later than the program announces, and as a consequence, proceedings are late and often draggy all the way through. This has a detrimental affect upon the spirit and enthusiasm of the meeting. Programs running behind time are as much to be loathed as express trains two hours late.

LONDON, ONTARIO, APRIL 2, 1914.

## The New Dairy Bill Excludes Imitations.

About the middle of last month the Minister of Agriculture, Hon. Martin Burrell, introduced in the House of Commons, Ottawa, a measure entitled, "The Dairy Industry Act," to regulate the manufacture and sale of dairy products, and to prohibit the manufacture or sale of butter substitutes. It will be remembered that "The Farmer's Advocate" has always taken a strong stand against any inroads of the oleo and butterine industry in this country. The Minister is to be commended upon bringing in such an excellent Bill, which, if it is passed without alterations from the first reading, should place the dairy industry in this country on as sound a basis as any legislation can do.

It is very clear cut in its references to substitutes for and adulterations of the products of the dairy. The Act of 1908, of course, prohibits the manufacture or sale of all substitutes, but there was an agitation on the part of the oleo interests to have this amended, so as to allow these products to be manufactured and sold in this country. The new Act strengthens clauses of the old by making possible the seizure and confiscation of apparatus and material used in the manufacture of butter, cheese or other dairy products in contravention of the provisions of the Act or any regulation made there-under. Under the former Act any person manufacturing goods which did not meet the conditions of the Act could be fined, could pay his fine and go on manufacturing the same as usual subject, of course, to another fine. This Act makes it possible to seize the apparatus and thus end the

A clause is also inserted governing the weight of moulded or cut-into prints, blocks, squares or pats, which must be a full net weight of one-quarter pound, one-half pound, one pound or two pounds, at the time they are moulded or cut. This does not apply to butter in rolls or lumps of indiscriminate weight as sold by farmers.

Under the former Act registration of creameries and cheese factories was required, but this has been done away with as being useless. All matters of the marking of dairy products has been left to be dealt with by regulation. The Governor-in-Council has the power to make any regulation he deems necessary regarding classification, marking, branding, etc., also covering the seizure and confiscation of apparatus, enforcement and operation of the Act, and all other necessary regulations.

It should be a source of satisfaction to all those engaged in the dairy industry to know that notwithstanding the fact that pressure has been brought to bear upon the government with a view to allowing imitation dairy products to be manufactured and sold in this country, the Minister has had the courage to strengthen the prohibitory regulations already applying to the trade. Perhaps before this is read the new Act will have had its second reading and been discussed in the House, but it is more than probable that this will not be the case. Whether or not it is so, dairymen should write their members expressing their views on this subject, and by giving their undivided support to this good measure strengthen the hands of those operating the legislative machinery at Ottawa, and by so doing hasten the passing of this Act.

Now is the time when it is likely that the opposing forces will bring their strongest pressure

to bear to have certain clauses in the bill changed or amended, and now is the time the dairy interests must stand pat and back up the measure until it is finally passed and becomes law. Members of Parliament, regardless of politics, should support this measure which is for the good of one of the most important branches of Canada's agriculture. Our dairy interests, one and all, will allow no imitation products in this country. What is good for the dairymen, as applying to the products of his business, is good for the people and the country. Back up a deserving movement to ensure a fair field for dairy products.

No. 1123

## In the Fight for the People.

The other day we came across an estimable reader of "The Farmer's Advocate", who was worrying because the big banking interests and Sir Jingo McBore had not lately been receiving an occasional dressing down or prodding up in these columns. The banks got in their fine work last year on Parliament Hill, at Ottawa, by means of a well-paid legal lobby, when the bank revision act was passing through the legislative mill. Long before that date, "The Farmer's Advocate" had begun a searching investigation and were fortunate in having the strong and brilliant services of Peter McArthur, in the vigorous campaign for very necessary reforms in the Canadian banking system which would abate monopolistic privileges and abuses. As we turned on the light, too uncomfortably clear for a few of the high and mighty ones interested, by a remarkable co-incidence some of the regular display bank advertising which the paper had been carrying, began to be withdrawn, which with other confirmatory circumstances disclosed the evident purpose of applying "discipline" to "The Farmer's Advocate"; plain talk and publicity was not relished. To their credit be it said the coercion dodge was not countenanced nor shared in by other and more sanely conducted financial institutions as observant readers well know. narrow and mistaken policy did not succeed and it never will. It only served to let in more daylight and that is what the people need now-adays. Our readers were urged to co-operate in the fight and press the demand for reform more strongly upon their parliamentary representatives. In issue after issue, facts and corroborative views of intelligent men, including some of the most enlightened bank opinion of Canada were published and when the Banking Committee, at Ottawa, took up the subject, the paper had representatives present to give evidence in support of its contentions. But the bank charters were renewed, and the act, about as the Big Interests wanted it, with some modifying and beneficial amendment was steam-rollered through Parliament practically settling that phase of the matter for ten years to come. Some people rather like to sit back and look on while others do the fighting, instead of turning in to help when some-Threshing old thing might be accomplished. straw is neither edifying nor useful, but one of these days, banking abuses may necessarily come under fire again and the friends of reform on all sides will have their opportunity and their innings. To-day other issues press for space and

This paper has a wide field of practical farm subjects to cover constructively in every number and in accord with its name, aims also to frustrate designs on the Canadian farmer and the

## The Farmer's Advocate AND HOME MAGAZINE.

THE LEADING AGRICULTURAL JOURNAL IN THE DOMINION.

PUBLISHED WEEKLY BY THE WILLIAM WELD COMPANY (LIMITED).

JOHN WELD, MANAGER.

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

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receipt of postage.

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

LONDON, CANADA.

general public. During the past year, we encountered the sinister propaganda of the big oleo interests to get a foot-hold in Canada and undermine butter dairying. The Minister of Agriculture (Hon. Martin Burrell) is putting an effectual quietus on this attempt by the new dairy bill, referred to in another article, which will preserve the good name of honest Canadian products established by a former government. Then we have had the open and covert schemes of a few hig firms to enrich themselves by palming off on the people a lot of supposedly cheap syrup products, under the guise of the word "maple" which if not stamped out, as happily a new measure undertakes to do, would strangle the genuine maple syrup industry. The clear-cut law, which also covers honey, now before Parliament, deserves support and public backing in order to effect its passage and whole-hearted enforcement. A widespread and wasteful program of militarism is being fastened on the country, and the naval armament trust from across the sea are preparing to fasten upon the toilers and resources of this new country, while fresh and staggering onslaughts by railway interests are being made on the treasury or credit of the Dominion and the iron infants clamor for bounties. These demands involve pressing issues that require publicity now, if the country is not to be "bled white" and the worka-day needs of agriculture and people suffer by the imposition of increased and long continued burdens.

We recently heard the remark that a feeder who could keep his live stock looking well at this season of the year must be a successful live-stock man. It is a fact that it is more difficult to keep the stock in good flesh during the spring monds than at any other time during the year, but is will pay in the long run to feed a little extra during the next month or six weeks, and have the stock go to grass in good condition. If they get down poor now it will require all the

#### Nature's Diary.

By A. B. Klugh, M.A. Broken the grip of the ice-king On land and river and lake, The whole world gently is stirring From the deep sleep of winter awake.

The murmur of running waters The babbling stream's refrain From the Maple boughs the Robin Carols his joyous strain.

Through the forest carpet Of leaves of a bygone year The unfolding spotted leaves
Of Yellow Adder's-tongue appear.

The Bluebird softly warbles. As over the fields he flies Reflecting on his wings The azure of sunny skies.

Midst the Soft Maple flowers The earliest bees are humming In the green Cedar thickets The Ruffled Grouse is drumming.

Where the swollen water-courses Bear the melting snows away The Willow's bursting buds reveal The catkins silky and gray

From the ponds the voices of Hylas Unite in the chorus they sing And the Song Sparrow in the Alders Pours forth his ode to the Spring.

Spring! The season of awakening; the time when the stillness of winter gives place to sounds and sights which foretell the coming activity in the realm of nature. The joyous songs of the returned feathered migrants wake an echo in the heart of man, and the flowers which first appear in the woodlands are appreciated far more than much more showy blossoms which bloom later in the year. To feel the true spirit of Spring one must live in a northern land, for there this season owes much of its charm to its contrast with the cold, still season which it replaces.

One of the earliest birds to return is the Bluebird, the bird which carried the blue sky upon its back. It competes with the Robin for the honor of first place among our spring arrivals. The records of the Wellington Field Naturalist's Club, of Guelph, Ont., show that in three years the Bluebird arrived first, in three years the Robin, and in three springs they arrived on the

The Bluebird haunts open fields, shrubby hillsides and orchards. When feeding, the bluebird usually sits on a low branch or on a fence post, keeping a keen eye on the ground below, now and then dropping suddenly on an unsuspecting insect, and returning to its perch. This species makes its nest in a hole in a tree or in a fence post, a hollow apple tree being a very favorite site. The nest is made of soft grass, and in it are deposited four or five bluish-white. eggs. The young Bluebirds have spotted breasts, thus revealing their kinship with the Thrushes, to which family they belong. The food of the Bluebird consists of sixty-eight per cent. of insects, and thirty-two per cent. of vegetable matter. The largest items of insect food are grasshoppers, beetles and caterpillars, all except a few of the beetles being injurious species. The vegetable food consists chiefly of fruit pulp, only an insignificant portion of which consists of cultivated Among wild fruits Elderberries are varieties. the favorite.

Another sound of Spring which we welcome is the "Kill-deer-kill-deer-kill-deer" of the Killdeer Plover. This is one of the Shore Birds which has forsaken the shore and taken up its abode in cultivated fields. This species is brown with an olive tinge above, the rump and upper tail covert's are orange-brown. It has a black bar across the crown, and two black bands on the neck and breast. It is from nine to ten inches in length. The nest is a depression in the grass, and the eggs are four in number, clay color, marked with blackish-brown. The Killdeer breeds from central Quebec to British Columbia, and winters from North Carolina, Tennessee, and Arizona south to the Bermudas, the West Indies and South America.

This species feeds upon beetles, grasshoppers, caterpillars, ants, bugs, cadis flies, centipedes, spiders, earthworms, snails, crayfish, horse-flies, wire-worms, clover-root weevils, white grubs, and mosquitoes. Thus among the items of its bill of fare are found many pests of the farm, and in destroving these it renders the agriculturist such a service that it should be withdrawn from the list of game birds, and protected as an insectivorous

## THE HORSE.

## Blind Mare and Foal.

Editor "The Farmer's Advocate":

One of the "common objects of the country" in summer is a mare with a foal at her foot. In a field near Biggar, Lanarkshire, an uncommon object of this kind could have been seen a blind mare attended by her foal. This animal that came of good Clydesdale stock, had a history of some interest. Going back to her earliest days, it is related that when the farmer who owned her dam saw that she had presented him with a foal without eyes he came to the conclusion that it was a useless acquisition, and sent a man for a hammer to give it a summary dispatch and thus get rid of the unwelcome In the nick of time another farmer in arrival. terceded on its behalf, obtained the foal and carried it home in a sack. It was reared on cow's milk, supplied in the first place from a flask. At the time the photograph was taken the mare was five years old, in excellent condition, and of good size, although for the first year of her life growth was slow. Trained at the usual age, she had the reputation of being an excellent worker in cart or plough. compensate somewhat for the want of sight her senses of hearing and smell were remarkably When at work apart from her companion. either in the field or on the open road, she was constantly on the alert and kept turning her head leisurely from side to side as if listening or trying to ascertain whether the way was clear or not; much as a blind man feels his way along the street. When being led or when working alongside another animal, she failed to show the same caution, and behaved as if she were in possession of all her faculties. To a stranger her most noticeable peculiarity was the way she kept moving her head, carrying it high, and usually to the side. In doing so she threw back her ears, as shown in the photograph, an action suggestive of temper, but of vice she was entirely To her foal she was greatly attached, and kept as closely in touch with it as circumstances permitted. She must also have been sensitive to the proximity of other animals, and careful, if considerate towards them, as a cat at one time reared a litter of kittens in safety among the straw on the floor of her loose box. The greater part of her time had been spent grazing in the fields. The ability to find her way to the pond or watering place was said to be quite sur-Even in a strange field, if once taken to the spot she readily found her way afterwards. On one occasion she was seven months in the same field, during which time no one went near her. By some means or other she came to be aware when nearing any obstruction. She could run rapidly about the field, and still pull up when nearing a fence. The only mistake she had been known to make was at a time when she occupied a field along with two other young, horses. Taking advantage of an open gate her companions got out and started galloping in the vicinity of the field. Hearing the clatter of their hoofs she also began to run, and, forgetful of any intervening obstacle, she was for once thrown of uard, and rushed against a wire fence which she got entangled. This mistake nearly cost her her life, but fortunately she was observed in time and released from her perilous position in which she was placed by misadven-CHARLES REID.

## Kicking and Switching in Horses.

Editor "The Farmer's Advocate":

Kicking and switching are two troubles often found together, but, like many other troubles, Kicking is often have to be treated separately. an act of defence caused by aggravation when handling, or it may be caused from some neglect in making the colt or animal familiar with its surroundings. As in the case of kicking when a line gets under the tail: a colt that has been made familiar with such before hitching will not be annoyed with the line under the tail. Switch ing is caused by nervousness.

In either switching or kicking try and arrive at the disposition of the animal, whether of a nervous or sullen temperament. If of the nervous type extra careful handling must be used. The sullen type must be conquered by force (not

To stop a horse from kicking, as I have said, make him familiar with his surroundings. If he persists take a straight bit, check the animal fairly tight, put on backband and crupper, snap one end of lines around backband, pass other end down through ring of bit. This gives you extra purchase, and when he goes to kick do not jerk but by a quick and firm pull on lines command "whoa," and make sure you are understood. Another way is to use a separate rope, make a good war bridle and put it on. When animal makes any attempt to kick, by a quick pull on rope you will surprise; again use the command

Switching is a mean habit to treat. A good

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## in Horses.

RLES REID.

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APRIL 2, 1914

way is to get a strap, make a loop in one end to allow crupper to pass through, and on the other end make a loop for the breeching to pass through freely. Then have two small straps with buckles riveted crosswise of strap to buckle to tail underneath the hair. This will not be easily seen, and if worn for some little time may overcome the habit.

. JOHN DUNN. York Co., Ont.

## Clip the Horses.

Editor "The Farmer's Advocate":

As it is nearing the time to start work on the land again, we farmers cannot recommend too highly the clipping of horses in the spring. The majority of farm horses do not know what a hard day's work is between the time the land freezes in the fall, and the starting of the plow the following spring. Neither do they cast their winter coat so readily when standing idle. Therefore, they become very soft, and sweat very easily when put at hard work again. Oftentimes they become wet with sweat shortly after commencing work in the morning and remain that way all day, which must be very tiresome to a borse. Sometimes horses are not even dry the following morning, and I feel sure all will admit that it is very unpleasant to sleep at nights in damp clothes. If a horse is clipped it saves much valuable time grooming twice a day, and the horse's skin can be kept much cleaner with a little brushing, and if given the same feed the clipped horse will generally be in better condition after three week's hard work at seeding time. A few will claim that a clipped horse will feel the cold, and probably will catch cold, but I think a little experience should change their minds, because a horse in fair condition suffers very little from the cold while working compared with suffering from the heat. Others do not like to clip their horses, lest they grow much more hair next winter. Now I think this to be a mistake. Fall clipping may have a very slight tendency to thicken the hair, but not so with spring clipping. Just try clipping all of the working horses a day or two before commencing your spring work this spring.
Wellington Co., Ont. J. M. COCKBURN,

Ropes Cured a Kicker. Editor "The Farmer's Advocate";

You ask for suggestions for preventing horses from kicking and switching. Last year we had very bad one to deal with. She was rising three, and of a somewhat nervous disposition. She was such a bad kicker she would let no one beside her in a stall, so was tied in a box stall and was approached through a door from the front. To harness or work around her one front leg had to be tied up and even then she would attempt to kick, and was getting worse. Her head was also tied up to a joist above. When we commenced working, if a line, trace or tongue touched her she would kick and switch, generally getting her leg over the trace or tongue, and would kick until she got it back. This continued for a week, and she got still worse. Whipping was tried but it provoked matters. She got so bad the men would not touch her. Then we took a plan of our own. We fastened a strong hame strap to each hind fetlock (with a ring on strap) then to the rings fastened a one-half-inch rope running up through harness to prevent tangling her feet, to halter. This rope was then tied just short enough that she could work. She was then hitched up and went perhaps ten feet when she put her leg against the tongue, then gave a terrific kick. It gave her neck such a lerk that it almost threw her over. She worked for an hour or more and tried it again only These ropes were kept on for a week, but as she made no further effort to kick and could not be provoked into kicking they were removed, and with one exception she has not kicked since, and that once was in the stable when a man went behind her and up beside her without speaking. As to her switching it was either cured or she quit it voluntarily. We braided an iron about eight ounces in her tail where it was not noticed. It was left perhaps three months, and the habit gradually wore off. She is as yet rather high spirited, but not vici-Ont. Co., Ont.

John Bright, who has acted as Chairman of the Stallion Enrolment Board since its inception, has resigned his position, and John Guardhouse, well-known horseman and stockman of Weston, has been appointed in his place. Mr. Bright has always taken a very prominent interest in the subject of stallion enrolment. After the creation of the Board he was appointed Live-Stock Commissioner for Canada, and it is owing to his duties in this connection that he has resigned from the Board at the present time. In fact it was his desire to have resigned sooner, but as the work was in the initial stages he was pre-

vailed upon to remain until the Act had been put

in good working order.

The British Hackney Stagnating.

The British Hackney is stagnating-that is clearly the lesson of the annual show of the English Hackney Horse Society just over in London. Substance, in the horse, has been sacrificed and lost for a will of the wisp called 'quality''-an indefinable something which is causing the breed to lose all its old-time, hard wearing, nay cast-iron properties. Saddle classes were cut out of the programme this year, and that is to be regretted, for there can be no doubt that at one time the Hackney was the ideal riding horse. Not that the saddle type is lost by any means, and it is for that reason that it is to be regretted that the riding classes were not continued, with a proviso that they should be shown in normal shoes.

mare, Woodhatch Sunflower, and when the veteran got the casting vote there was general ap-

In three-year-old Stallions, Mrs. Fletcher and Sons', Angram Majesty was awarded first. has the style, quality, and action which distinguishes the Angram horses, and every time he came out he made a better show, always moving "within himself". Among the bigger three-yearolds, W. W. Rycroft's, Bingley Toreador was a good winner. He is well coupled, and has a rare look-out, well-placed shoulders and quarters, and his back ribs are better than the average. made a great show, flexing his hocks well.

The class for stallions, five-years-old and over over 15 hands 2 inches high, was robbed of much of its interest through the untimely death of Sir Walter Gilbey's, An-

tonius, which took place 24 hours before the show. Still, we had M. A. Martinez de Hoz's, Hopwood Viceroy and Edward Hollingsworth's Moordale Toreador Moordale Toreador to fight their last year's battle over again, and although it was with the same result, it cannot be said that Hopwood Viceroy's victory was an easy one.

Four-year-old stallions over 14 hands and not exceeding 15 hands 2 inches were only a small class. W. W. Rycroft's, Hopwood King, which won the junior cup last year, and which was also Champion at the Royal and first at the York shire was in fine form, and won very

cleverly. The stallion championship fell again to



The Old Blind Mare.

The female breeding classes were infinitely better, group for group, than those of the opposite sex. Two-year-old fillies made a level class, at the head of each was placed W. Briggs', Albin Lady Borwick, a beautifully balanced filly, with good bone and quality. She is built on the lines of a brood mare. Though there were only eight entries for three-year-old fillies over 15 hands, it made a strong class. After some difficulty, the premier award went to E. Bewley's, Beckingham Lady Gracious, which won at the Royal show last year. She has grown into a beautiful mare, and

Martinez de Hoz's, Hopwood Viceroy, a ten yearold with a history and an international repute, for has he not sired stock and won honors on two Continents? His reserve this time was Bingley Toreador, a beautiful three-year-old son of Kirkburn Toreador, the champion of 1909 and 1910. Second reserve was Hopwood King, a four-yearold son of Admiral Crighton, so that it would look as quite feasible that in the fulness of time Mr. Rycroft should secure his name being en-graved on the nineteenth challenge cup for stallions when it is put up for competition next seayear. She has grown into a beautiful mare, and made a great show, but she came against a great mare in C. E. E. Cooke's, Bygrave St. Agree championship again for Henry Gilding, and her reserve this time was M. F. Goodbody's,

Cudham Marjonie, with Beckingham Lady Gracious (E. Bewley's) second reserve.

The harness horse championship fell to Martinez de Hoz's, Argentine-bred Gay Boy, who defeated Philip Smith's, King of the Air in a grueling contest, in which, of the two, the Cheshire-owned horse did the more execution, going hard and true, both fore and aft, and kept on doing it. The decision was none too popular.

The pony classes were full of exceedingly good stock, and everyone was delighted to see Enoch Glen's stallion, Torchfire, record his second win in the contest for the £50 Chailenge Cup offered for stallions in harness. It is three years since Torchire notched his first victory in this event, but time has dealt lightly with

atha, which was the winning two-year-old in him, and his action is just the crisp, smart, London and which made a very brilliant show. rythmic motion so much desired. The increasing interest of the lady lover of the pony was noticeable in this year's awards.

The Stallion which came out best as a sire of winners at this show was Polonius, Robert Whitworth's veteran horse responsible for 24 riband bearers. Mathias' stock won 13 prizes and Beckingham Squires 12. In ponies the stock of Talke Fire King (W. Wainwright's) won 9 prizes and Sir Horace's youngsters got 7. G. T. BURROWS.



Radium.

Radium (13674) is a son of Hiawatha, and a sire of male and female winners and champions in Sc tland. Owned by Longfield & Woolley, Crampton, Ontario.

London, and which made a very brilliant show. In mares four-year-old and upwards, over 14 hands, and not exceeding 15 hands 2 inches, M. F. Goodbody's, Cudham Marjorie won first, after a close struggle with Mrs. Arthur W. Garland's, Hopwood Leda. Let year's champion, Mr. Gil-ding's, Beckingham Lady Grace made a great show in aged mares over 15 hands 2 inches, but it was a very near thing between Sir Lees Knowles', Knowle Halma and E. Bewley's fine young

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## Breaking the Switching Habit.

Editor "The Farmer's Advocate":

Having seen in a recent issue, the enquiry J. H., re switchers and kickers: I am going to tell you how we cured a mare that was very troublesome because of these vices. We put a collar on her and then braided her tail down and tied it up over her back to the collar quite tight; she was left in that condition for about fortyeight hours, when we let it down and from that time on, she gave no trouble as a switcher and seldom attempted to kick, unless there was a good cause for it. As a rule, horses with this habit are very high strung, and have a bad temperament, and must be handled very gently. Simcoe Co., Ont.

## LIVE STOCK.

#### With the New Comers in the Stock Barn.

Editor "The Farmer's Advocate":

As the season for young lambs and young pigs is here, I would like to send a timely suggestion to your paper. When we find young lambs wet, cold and chilled, we immediately put them into a large pan of hot water, as hot as the hand will bear, being careful to keep their heads above the water. As the water cools they are removed, and the temperature is raised by adding boiling water. The lamb at first shivers and shakes. When it feels naturally warm it is wrapped in hot cloths and placed in a box in the oven (not too hot) with the door open; or if too hot, at the oven door. In a short time it is dry and lively. Cow's milk is warmed and given a little at a time, using a rubber nipple on a bottle. The warm milk strengthens the lamb, and the hot water supplies warmth, and it dries naturally. The warm milk is very essential. We had a ewe with triplets, two of which were very weak, and were cold and wet when found. They were brought to the house, and after a time in their warm bath they could jump out of the box.

I have also treated young pigs in this manner with equal success. If sows do not eat and are not doing well after farrowing, it is sometimes due to indigestion. Some baking soda in sweet milk will often right matters. It can often be prevented by judicious feeding, as for instance, light feeding the day before farrowing and very light for four days after. Just a little water and shorts very sloppy until she begins to ask for more. Then only what she can eat up clean

in a few minutes.

We commence to feed the young pigs at about two weeks old. Just a little middlings in some warm milk. New milk is best. They certainly pay for it. From the first few days we have an opening for the little pigs to run out of the pen anywhere through the piggery on the earth in alleys. Their trough of feed is kept in the We put wood ashes, salt and earth on floor of pen. The pigs both young and old enjoy it. This treatment of young pigs is very satisfactory. Exercise and fresh air for all pigs is essential, but not roughing it and exposure.

Cows about to freshen are much less liable to trouble if kept in a thriving condition. By that is meant, not over-fat by any means, but thrifty and gaining.

I would like to call the attention of every stockman to the treatment pigs and cattle receive before putting on the cars in shipping. They are taken from a warm pen or stable, and left standing in open yards at stations without even a roof over them, no matter how hard it is storming. This must mean great suffering, and is also a loss to the drovers. The cars are not always there in time, and one shipment of ours remained all day and until two or three a.m. next day in intensely cold weather. 1 wish someone of the societies for the prevention of cruelty to animals would investigate and see if it is not possible to lessen the suffering by providing suitable shelter. The loss must finally come out of the farmer, so I consider it to his, advantage to help on any movement made in that direction.

FARMER'S WIFE. Northumberland Co., Ont.

Ministerial orders have been persed prohibiting the importation into Canada of any hay, straw, fodder, feed stuffs or feed stuffs or litter accompanying horses from Great Britain for six months from March 21th, and prohibiting the shipment into Canala of cattle, sheep, other ruminants and swine icom Great Britain, Ireland and the Channel Islands on steamers carrying horses from Continental Europe for six months from April 2nd.

#### Raising Calves on Whey.

Editor "The Farmer's Advocate":

In the vicinity of our cheese and butter factory we often hear the remark, "I would send my milk to the cheese factory only I cannot raise the calves if I do", but this is the way we have done it on our farm for the past four years.

We have started calves drinking whey at three weeks old, and have not had a case of scours in the past three summers. We start a calf three weeks old on four pounds whole milk and five pounds sweet pasteurized whey, gradually increasing the whey and lessening the milk. tablespoonful of calfmeal made into a porcidge gradually increasing the porridge to a teacupful twice a day with ten pounds whey until the calves are six or eight weeks old, when we drop the meal and use finely ground oats. The ground oats, are not cooked, just stirred in the whey. six or eight ounces twice a day, and increase to sixteen or eighteen ounces at four months old or as long as the whey keeps coming.

We try to get the calves outside in the fresh air and sunshine as soon as possible in the With plenty of good grass, free access to shelter and water in hot weather, they will

grow like weeds.

We have tried feeding the whey clear and giving whole oats instead of ground oats, and we had far better success in feeding oats ground, as each calf gets its proper share. We have no trouble at all in getting them to drink the whey. They are always eager to get it. We raise just as good calves as any raised on separator milk, and better than many we have seen. Last fall we sold three steer calves, at an average age of nine months, for \$100. Watch the feed, watch time, and watch calves grow into gold dollars.
Lambton Co., Ont. ROBT, SHARP.

edges of the staves of our new silo, and we be-We believe lieve that it will last indefinitely. that the stave silo is the poor man's friend, and as for the relative value of the stave and the cement silo the difference lies in the first cost, and lasting qualities, and each man's circumstances must be his guide in making the decision as to which he shall build, because either silo properly built will save silage in first-class condition.

A. B. ARMSTRONG.

Northumberland Co., Ont.

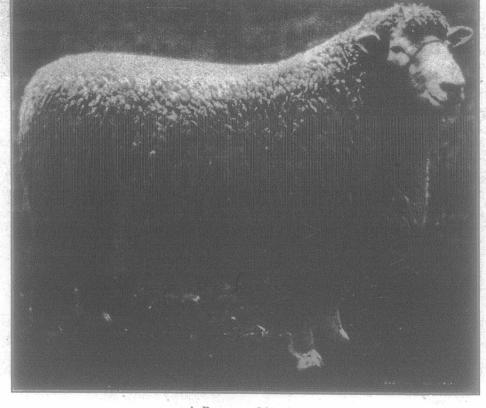
## Raising Winter Farrowed Pigs.

Stock raisers are well aware that it is a difficult proposition to raise a litter of fall farrowed pigs. They may get unthrifty or crippled, or actually die from unexplainable causes, when the owner is doing everything in his knowledge to make their environments and rations conducive to health. They are sometimes killed with kindness many young litters succumb to over-feeding when they are housed-up and liberally fed. The young things become too fat and their internal organs become congested and sluggish in their movements.

First and foremost, the pen should be large enough to allow of a little exercise, but some outside runs should be provided in the barnyard or manure heap, but pigs should not be allowed to nestle in the warm horse manure. It may It may give rise to rheumatic troubles and unhealthy swine. Ventilate the building and provide a sleeping place that will be dry and elevated slightly above the damp floor. The quarters must be such that the pigs are not obliged to loaf around in damp, dull stagnant atmosphere.

The sow should not be too fat at farrowing

time, but is necessary to have her in a healthy, thriving condition. After farrowing, feed lightly at first, on bran or middlings, and slop before bringing her to full feed in a week or ten days. Feed her a little sulphur in the rations and allow her access to charcoal and bonemeal, that she may not be in a craving, physical condition and turn cannibalistic towards her young. Don't think that you cannot have the young pigs too fat. This is a fatal and common mistake, and should be avoided. After weaning skim-milk and mid dlings make an excellent ration, but if it is desirable to feed ground oats, the hulls should be sifted out. Some times the middlings may be fine and floury and cause digestive troubles,



A Romrey Marsh. Sold at a long price, to be used in the Argentine.

## Feeding Out Silage.

Editor "The Farmer's Advocate":

We are enclosing a few notes on the silo, a short description of which was sent you last October and which we erected at a total cost of one hundred and twenty dollars, including work, foundation, roof and all. It is built of 2 x 6 inch lumber, tongued and grooved, and we may say that it has given excellent satisfaction, not having any spoiled silage after the seal was taken off. The silo is built on the west side of barn and has no protection from the north, and the silage froze around the sides of the silo to some extent, but by taking advantage of mild days and keeping the silage low around the outside edges, we were not inconvenienced to any great extent. As we used the silage we threw any frozen stuff down into the stable, say in the morning, and it was generally thawed out by next feeding time, so that the cows ate all of it and none was wasted. Our silo is 12 feet in diameter and 30 feet high, and we have about six feet left in the bottom, and we expect that to last us till grass grows. On moving onto the farm, which we just purchased one year ago, our first care was to build a silo, and we could not think of trying to farm without one. We built a stave silo fifteen years ago of hemlock staves, and the staves to-day are as sound as ever, and the sile was not painted nor treated with wood preservative in any way, and we are beginning to think that the silage is a very good wood preservative itself. We have painted the outside and

which are evidenced in diarrhoea or constination. In such trouble, scalding the meal is effective. and it is also wise to mix with it a little branor ground oats. It is desirable while the pigs are young, to develop frame and organs that will be necessary at a later date if they are to be fattened or kept for breeding purposes. Exercise a prime requisite and they should be allowed a run and be forced to use it. Brushing them around with a broom or switch, may seem like childish amusement. but it is a wise expedient to prevent future trouble.

Lice and worms frequently visit the litter, and it is unprofitable indeed, to waste good fedder on such unproductive pests. For lice, erect a scratching post in the pen, and around it, wrap old rags or bags. Then saturate the rags with crude oil, and the swine will soon realize the convenience of the post upon which to rub. The oil will be conveyed to the parts attacked by the lice and exterminate them. If worms are troubling the pigs, procure some finely ground iron sulphate at the druggist's and mix it at the rate of one dram per hundred pounds live weight the hogs in their morning slop. This is more effection tive when consumed on an empty stomach. Rem peat this treatment every other morning for week, and if time does not show results, repeat the doses. Experienced swine raisers find it and visable to keep a mixture of charcoal, wood ashes, lime, salt and iron sulphate constantly before the pigs. They eat what they wish, and by doing so e, but some be allowed It may unhealthy L provide nd elevated he quarters obliged to atmosphere. t farrowing it is neces have her in hy, thriving

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ults, repent find it ad wood ashes, ly before the by doing so prevent worm infestation and supply themselves with mineral matter to build up their frames.

Constipation and diarrhoea are symptons of digestive troubles. A little study of their rations and conditions will usually locate the cause which should be at once removed. One correspondent, writes that he has one cure-all for all diseases, and it is turpentine and new-milk. The new-milk is indeed commendable, but common Epsom salts are usually to hand and four to eight ounces, according to the size of the pigs, is a good medicine in most cases. When trouble is brewing, reduce the allowance of feed; purge with salts or raw linseed oil and establish them in dry and comfortable quarters. Keep the hog in comfortable, well-ventilated quarters, allow him exercise, and make him take it, feed him a balanced and well-regulated ration and he will thrive;

## A Critical Season for Stock.

Editor "The Farmer's Advocate":

Early Spring has come and with it arrives the time when the stockman must be on his guard every hour of the day. The months of March and February have been extremely cold, and now that the finer days have arrived, the temptation will be great to allow the stock to be exposed to extremes of weather for which they are none too well prepared. Not infrequently the fine warm air of noon leads one to turn out his cows for a little exercise, and to leave them out while one is away on an errand or out to the field. It is under circumstances such as these, that the wind is almost sure to change from the warm south, to the bleak north east. The result is, that when one returns to his stock, he finds them huddled around the stack giving every indication of misery. If to the cold wind there has been added a lively fall of sleet, the misery of the stock is complete. Under such circumstances, one is lucky if he gets off with a shrinkage of a pound or two in the milk yield for a few milkings. Not infrequently, a case of sickness results. A neighbor of mine has a mare that was changed from being a fine serviceable animal to one that is absolutely useless, by just this sort of treatment. It should be remembered that an uncomfortable animal is almost sure to prove an unprofitable animal. Particularly is this the case with breeding females. April and early May are days when the weather is extremely fickle and no one can forecast the condition of the elements for even a few hours. The bland and the bleak, the dry and the sleety, succeed each other without anyone being able to forecast which is coming next. All this makes outdoor life at this time of the year too precarious for the animal of the average farm. Under these circumstances, farm stock should never be left outside unless they are under observation. To neglect this precaution, is to incur the risk of heavy loss at the expense of a winter's feeding and care. A comfortable stable, with plenty of ventilation, day and night is about the best place for all animals, till all prospect that winter or spring are lingering has gone by. A little precaution in this particular is much in order just now. York Co., Ont.

## Green Feed for Pigs.

Editor "The Farmer's Advocate"

Now is the time to plan for the pig's forage crops and roughage, as well as to set aside the plot for raising the roots to supplement the grain ration for another year. If the value of clover, alfalfa, rape, peas, etc., is unknown, now is the time to study up on the ecomonics of such crops for the hog raiser, or for the general farmer raising pigs. And the pigpen will help furnish the dressing for such extra crops.

Hog droppings form an exceptionally rich fertilizer, forcing all crops, especially corn. Ashes make a rare supplement, but never used in combioation with any fertilizer, as wood ashes re-lease the ammonia in manure and neutralize Use the pig offal at planting time, but sow the ashes after the corn has started, sifting it upon rows by machine in advance of the culti-Southern corn, which will not head out in this short summer season, makes desirable fall pig feed, as does the stover from sweet corn that fails to ripen. Plant any type of corn early, by the middle of May if soil plantable. The richer the land the better, both in barnyard fertilizers and commercial output, half a ton to the acre or thereabouts. three or four stalks to the hill, or thin to that number if too thickly planted. Use acclimated seed, and practice frequent hoeing and shallow cultivation.

Forage crops for summer and fall must not be neglected. Legumes like sweet clover, clover, alfalfa, and their kind, oats sown on ground previously broadcasted to clover or alfalfa, with field peas and rape, gives a good forage plot, with the clover and alfalfa in the ground for future seasons. A bushel of oats, half a peck clover, and half to same amount rape seed sows an acre, and will furnish forage ground for a

dozen hogs for three months. Sow the rape after the grain is up, before the

last week in June, although all can be planted together in the spring. Rape will grow successful crops, like grass and clover, if the grazers are removed from time to time to other fields to allow this to rejuvenate. By the second or third season after the bacteria have been introduced, there will be a good stand; as alfalfa hay, steamed or boiled after chopping, makes a firstclass winter pig feed as well as forage crop for summer and fall, its study is worth while. As a green feed it lowers the grain bill. Stock fed to alfalfa inoculate the land with alfalfa through the dressing. But in the beginning the average experimenter thinks alfalfa soil the quickest, if the most laborious way, of inoculating the land. About a hundredweight of alfalfa soil is commonly applied to six rods square, with barn dressing and whatever commercial fertilizer is at hand, plowing under with lime. Better results will be obtained if, when this shows green, it be again plowed under. Lime or basic slag with potash s necessary for alfalfa on most soils. Two or three pounds alfalfa seed on this plot will aid the inoculation. Sandy soil, as fields near a shore, need less lime; but every breeder of pigs, meaning to raise the best and cheapest diet for them, will experiment, and provide whatever best

serves his individual locality. Seven or eight hundred pounds lime on this patch will probably not be an excess of lime with thirty pounds sulphate potash. The stand is likely to winter-kill in spots the first year, so it is a good plan to go over it with scattering seed

the following season. Pumpkins are an easy, cheap crop to grow, and pay to plant for green winter pig feed. Save the seed this winter from the best home-grown pumpkins, dry without freezing, keep in a dry, non-freezing room free from rats, and plant as early as is possible to escape frosts.

Sulphate of iron is as regularly used by some breeders as the daily food ration, a five-cent pound dissolved in a pint and a half water doped to every porker (a teacup dose to the adult hog) every day for a week at a time, with half-week gaps between. Administered in the regulation feed it is never refused, and keeps hogs in condition, preventing cholera and kindred

diseases. A double rise in pork is predicted for another year-in pork and beef-really, but hogs are so much more quickly brought to the block than cattle, the investor in swine is the winner. gin with pure-breds and sell registered stock to others who will enter this line when they realize that pork is on the boom, Advertise freely. Run a continuous advertisement in a good farm paper, thus keeping your name before the stock-raising public. You will sell the more for it next year. Raising breeders for sale to farmers is just twice as profitable, for young pigs will sell for double the price of unregistered stock, and a good sow will bring forth two litters a year. By breeding as soon as the mother farrows, litters will be too large to be well nourished, both before and after birth, so give her time to recuperate after her vitality is drained. Keep a record of stock solder cost of feed, cost of new sires, price received for out-going stock, yearly profits, etc. Better than any record of others' doings will this incentive prove to redoubled efforts. Choose a particular breed, and grow enthusiastic over line-breeding, in-breeding, breeding for size, breeding for points, grow zealous over some line of industry, so you foster the spirit that makes for success. Aim for quick growth, making 200 pounds of pork in half the year.

C. H. TROTT. Washington Co., Maine.

## Western Pork on Eastern Markets.

Eastern Canada is hearing a good deal at present about the development in mixed farming on the prairies. It would seem that all this talk is not without foundation, for already this spring over four thousand hogs from Manitoba and Alberta have been sold on the markets at Toronto and Montreal, Toronto getting the major portion. Stockmen in the East should hear in mind that competition from Western feeders is likely to grow keener as years go by. The prairie farmer will, by adopting the feeding of hogs and other classes of live stock, find a profitable outlet for much of his good grain, as well as for all of his frozen, inferior-quality crop. He will be able to produce meat at a comparatively low cost, but there seems to be little danger of low prices in this country for some years to However, it is well to keep in mind that the West is going to be a large factor in the Eastern markets, for on days of the heavy Western runs this spring the prices for pork seemed to steady down, and in some cases, decline.

By Order in Council, the regulations under the Animal Contagious Diseases Act have been amended to require that animals imported from Great Britain, be accompanied by an official certificate of the Board of Agriculture and Fisheries, instead of that of the local authority, and animals imported from Ireland by an official certificate of the Department of Agriculture and Technical Instruction for Ireland. The amendment will come into operation on June 1st, 1914.

## Improving the Ventilation.

Editor "The Farmer's Advocate":

Refering to the hog pen mentioned in your number of March 26th, 1914, I may say it was built with 2 x 4 scantling for a frame, and boarded on the outside horizontally first, then covered with tar paper, well lapped and firmly boarded up and down. The outer or last boarding extending down close to the ground, and before the ground froze I made a trench or ditch about a foot or fifteen inches from the sides and north end of the pen. In doing this I threw the earth up as a banking against the bettom, preventing any draft underneath the floor, and the trench provided drainage for the drip from the eaves, carrying the water away down the slope at the south end. The pen is 16 by 18 feet. The feed alley and trough take up about 4 feet of the 18, leaving a pen for exercise and sleeping platform of 16 by 14 feet. I found this about right to accommodate 10 pigs. I sold nine of them on the 26th of February, within a few days of six months old, when they weighed 1,605 pounds. They seemed to be warm and com-fortable, although the inside of the pen was coated thickly all the time with frost. I think the continuous cold weather was a good thing in this case, as it kept the frost as frost and prevented it from thawing and dripping. I said I had my own opinion as to what would have to be done with this pen. I think I shall have to double board it inside with paper be tween, and then take about half the boards off the ceiling, or upper floor, and put in a lot of straw or marsh hay, and try and get some in-lets for air around the bottom of the pen. I think it will be much drier then, Frontenac Co., Ont. A. C. A.

## THE FARM.

#### Peoples Banks in the Province of Ouebec. II.

The aims and objects of co-operative banking were described in a former article. It is now proposed to explain how these institutions are organized and operated.

Mr. Desjardins was not the ploneer, of course in this kind of banking, although he was the first to apply the principles of co-operation to banking in Canada, With a perfect genius for modifying and adapting to meet Canadian conditions all that was successful in European experiments along these lines, he seized upon certain principles which had been applied successfully in Germany by Schulze, and in Italy by Luzzatti. Schulze, a native of the town of Delitsch, had wrought wonders among the farmers in his district by establishing a scheme of co-operative That scheme, in one form or another, has been taken up by other European countries with astonishing success. But Schulze had introduced the principle of unlimited liability for all members; and Luzzatti had merely modified this by limiting the liability of each. Mr. Desjardins abolished liability of any kind, a farmer risking only whatever capital he might have invested in shares. And even here he was again protected; for, in case he might wish to withdraw his investment he might do so practically at will, a notice of thirty days only being required. It may be mentioned in passing that this system has been in practical operation among the savings banks of the New England States for three-quarters of a century. These institutions are uncapitalized; their funds are secured by the sale of shares to members, and, as has been said, the shares may be cashed in and the capital withdrawn with the utmost case. These American institutions, too, have more than justified their existence. They have placed no burden or liability of any kind upon their members, and this has undoubtedly contributed to their usefulness and popularity. Mr. Desjardins stressed this feature in establishing his banks in Quebec, for he has always been of the opinion that the farmers of Canada, and particularly of Quebec, will not successfully co-operate along any other line.

The organization of a bank of this kind is a simple matter. The capital is furnished, as has been said, by the shareholders, each share being for only a small amount. The administration of affairs is carried on by three committees and a general manager, the former being elected by the votes of the shareholders. These committees are: The Council of Administration, with from five to nine members; the Credit Committee of three members; and the Supervisory Committee. The members of these committees hold office for two years. The Council of Administration controls the admission of new members, the transference or withdrawal of shares, and the general interests of the bank. It chooses the general manager—the only salaried official in connection with the business. The Credit Committee termines the amount of credit to be allowed to

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each member, and decides upon all applications for loans. The members of this committee must be unanimous in deciding to grant a loan, one adverse vote sufficing to make a refusal. The members themselves cannot secure a loan. Should a loan be refused, the applicant may appeal to the Council of Administration; and its decision is final. The Committee of Supervision, as its name implies, supervises and audits the affairs of the bank. In any emergency this committee may suspend the operations of the institution until the situation is investigated by a general meeting of the shareholders.

It has been the aim of Mr. Desjardins to make these institutions truly democratic, and in every sense of the word peoples' banks. Not a cent of the capital has been secured from outside sources; the members have contributed the full amount themselves. At first the value of the shares held by a single member could not exceed \$250. But the banks gained in popularity so rapidly among the country people that they wished to have the maximum raised. Accordingly, it was made \$3,000, at which figure it now

It is accounted an honor to be a member of the local society. It is a badge which denotes good citizenship, integrity and moral worth. Every candidate must be known personally to the Council of Administration, and must be vouched for by a number of shareholders. A condition of membership is the purchase of one share, valued at \$5.00. This may be paid for by weekly instalments of 12 cents. A tax of 12 cents is also Twenty per laid upon each share purchased. cent. of the net yearly profits, as well as the tax received on each share, are carried to the Reserve Fund. This fund continues to grow until it has reached twice the amount of the general assets of the institution. For example, assets of \$50,000 would require a Reserve Fund of \$100,-000, and as the assets increase the Reserve rises proportionally.

Now, by the law of Quebec, this fund cannot be distributed in case the institution goes into liquidation, but goes to some local charity. This is designated to prevent hasty or ill-considered action involving dissolution of an association. The Reserve is, therefore, a real bulwark of the society. In addition there is a Provident Fund, made up of a 10 per cent. of the net yearly profits. This fund grows until it has become equal to one-half of the assets of the association. It is meant to form a first defence, in case of any emergency or need. In a word, everything possible is done to run the bank on safe and conservative lines.

In advancing credit to a borrower for an approved purpose, his interests are carefully considered first. The basic idea of the whole scheme is service to the community, and not profits for the shareholders. Wide latitude, therefore, is given to the borrower, as to the time, and the manner, in which the loan must be repaid. Whenever possible the instalment plan is favored, and its advantages pressed upon the borrower. These instalments, too, may be paid in and allowed the current rate of interest (4 per cent.) until the principal sum has been collected; or, if the borrower prefers, he may apply these sums to the direct reduction of the debt, interest being paid only on the balance due in each case.

All this is done to induce the borrower to pay promptly. It is made a point of honor on the borrower's part to loyally meet the conditions of the loan, thus preserving his own credit and strengthening the position of the bank. As has been said, since these banks were established in 1900, not a cent has been lost through non-payment of a loan, either interest or principal. Aside from the great economic function which these banks perform, there is not an institution in the country which does so much to inculcate habits of thrift, foresight and integrity among the people.

Our third and concluding article will describe more in detail the relations of the bank to the community it serves.

W. W. SWANSON. Kingston, Ont.

## Good Silage from Cement Silos.

Editor "The Farmer's Advocate":

I have seen many questions in recent numbers of your paper about cement silos drawing the moisture out of the corn, and causing it to spoil around the side. I put up a cement silo last season, and it was not erected more than four or five weeks before I filled it. The contractors plastered it on the inside, and I kept the walls quite wet when filling it on account of it being recently built and being filled for the first time. The silage was first-class, and there was no musty or spoiled silage around the sides and walls. For twelve or fifteen years I had a wooden silo made of staves, but it was hard to keep in shape in dry and windy weather. wooden siles blew down last summer, and I considered the round cement silo the best and cheapest all round silo, taking everything into consideration.

Huron Co., Ont. A. POLLOCK.

## Small Bird Reserves on the Farm.

Editor "The Farmer's Advocate":

The value of the activities of birds to agriculture is becoming so widely recognized that a good deal of attention is being paid to the encouragement of these useful allies throughout the country, and farmers are beginning to realize that they can advantageously and profitably lay aside a small piece of ground for the special use of their feathered assistants. Having given considerable thought and study to this matter, the writer offers the following suggestions as a guide to any one desiring to establish a small bird reservation:

For the enjoyment of the owner and also for the purpose of bringing the birds to the orchard the reservation should be situated near the house near the orchard, or if the orchard is any distance from the house then it should be between The distance from either will naturally vary according to the desires of the individual, as if he is chiefly anxious for the companionship of the birds for himself, it will be nearer to the house than if his anxiety is mainly for their assistance among his fruit trees.

Two or three acres will make a very serviceable plot, though a single acre will be much better than none, and the ground should be planted so as to make a thicket in as short a time as possible.

The area should be well fenced, preferably with heavy netting at the bottom. Dogs, and if possible cats, should be excluded, and rabbits should not be included. Remember the experience of the Western sheepmen who fenced a large section of land to exclude coyotes, and after it was completed found they had fenced some covotes in.

Viburnums, with berries varying The native from white to black, are also used by the thrushes and other birds. The wild blackberry should be planted for the purpose of making tangle, which the birds delight in. The wild red Raspberry is much frequented and desired by some birds. Currants, while not particularly durable, would doubtless add to the general at tractiveness of the jungle. Then there should be climbers, particularly the two bitter sweets, the climbing bitter sweet and the annual one. the best and most useful climber of all is the wild grape. Plant these beside a brush-heap and they will soon cover it and make ideal pro-tection for many of the seed eaters and food for larger birds. Small willows are not only desirable as providers of insects, but also because of the ease with which they take root and grow.

There is no good reason why some ornamental shrubs should not be used, particularly on the sides facing the house and road. Spirea Van Hautte, (the Bridal Wreath) Lilacs, Philadelphus or Mock Orange, Exochorda and others, could be used with advantage and beautiful effect, more over many of these are already popular with the birds we are trying to attract. And while some objection may be raised to them on the score of expense, yet that objection does not apply to lilac, which sucker freely; so that we can obtain a hundred small plants by digging and dividing single old one.

All these trees and shrubs should be planted not closer together than ten feet, unless enthusiasm and opportunity are unusual, and if so planted it will be five or ten years before any require to be taken out, but when they grow into one another, it would be as well to cut out some of them, as by that time the birds would

have ample cover, and if the owner wished to make any personal use of the reserve for pleasure or investigation, he would find it well to remove some of them and an intelligent selection could then be made.

At the beginning, however, there will appear to be a great deal of unused space, and this might well be filled with millet and buckwheat. This would, of course, apply only to the first season, as after that it should be left so that the shrubs could have their own way.

Two weeds whose seeds are very much admired by winter birds are ragweed and pig weed. If a patch of these weeds is

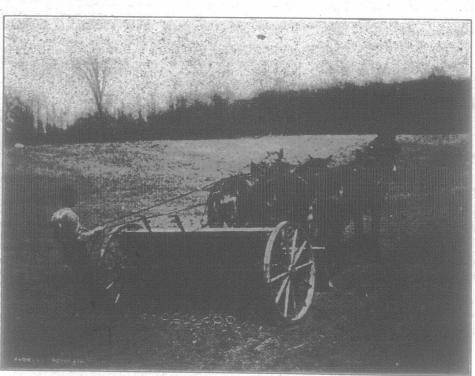
it should be on the house side planted, not closer than twenty or thirty feet from the edge of the jungle, so as to prevent the weeds from spreading into the neighboring cultivated land. When the first year's growth has taken place there is little danger of the spreading of such weeds over what will then be uncultivated ground.

The above list contains most of the plants that are specially suitable for the purpose, but while endeavoring to procure as many of them as possible, the planter will, of course, use largely the shrubs that happen to be most available. employing also such wild perennials as golden

rod, aster, etc. Old stumps will prove an attractive addition to the reserve and will be an attraction to the Chickadees in nesting season, and if these birds can be induced to locate there they may be easily held for the whole year by a little feeding in winter, and no bird is more useful in the orchard than this species.

For the first few years there will be no place in this plot where Robins can nest. will seldom be very noticeable, as most farms have already some old trees in which they may nest, but, if there is absolutely no opportunity for them the need may easily be supplied, by piece of 2 by 4 scantling driven into the ground, with two cross pieces near the top forming a suitable nest foundation, the whole to be covered with a collection of dead vines, etc., leaving space for the birds to enter. If some wild cucumber is planted at the base of this it will cover the post after a few weeks of growth.

A few nesting boxes stuck up on posts or on large trees would serve to attract bluebirds, tree swallows and house wrens, but care must be taken to keep down the English sparrows by means of trap and gun, or else those native



The Industry that Makes Canada.

A few clear spaces among the planting are desirable, but the bulk of the ground might be thoroughly covered to good advantage. shrubs and vines of rapid growth should be planted even if they are not so desirable for permanent use, but perhaps the most essential point is the planting of fruit-bearing trees and shrubs which will be used as food by such species as desire it. Almost every kind of tree has some features that are desirable from the standpoint of the birds, for instance, the basswood is very subject to aphids on the leaves, which makes it very attractive to Warblers and other small insect eaters, but as a supply of insect food of some sort is found on every tree and shrub, no trees are placed in this list of recommendations, except those that are specially adapted in some way to the purpose of bird encouragement.

In the list should be a couple of hemlocks at good distances apart. These trees are the most attractive of all to the cross bills in winter, hemlock seeds being their favorite food. Six Manitoba Maples are recommended because the seeds hang all winter, and when the rare Evening Grosbeak visits us it is very fond of these seeds. This tree varies a great deal in its seed-producing qualities, and for that reason six are recommended but only two ought to be left, and those two should be selected for their seed-bearing qualities. A few Mountain Ash trees will provide berries for the late fall and winter birds, while Mulberries and the native Shadbush are needed for summer fruits.

In an investigation by the Division of Ornithology in Washington a few years ago they found that the berry which was most widely esteemed by the birds was the Elder, therefore, it would be well to plant a number of Elders. Thorn bushes make excellent bird cover, and the fruits are used by some birds in the autumn. s varying ed by the blackberry making he wild red desired by particularly general a e should be sweets, the one. all is the brush-heap ideal pro

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birds, tree must be trows by se native species that nest in cavities will be unduly harrassed and prevented from breeding.

Red squirrels should also be persistently de-These animals are second only to the domestic cat as bird exterminators, and will deyour every available brood of nestlings unless they are prevented.

A path winding through this jungle would be no detriment, and may often be a convenience. It should go near the trees, and as these will prevent any thick growth coming beneath them, wild flowers can be added to the collection when they are partly grown.

During the first year or two the occasional use of the hoe around the newly-planted things will hasten growth but during the season of birdnesting, from May 1st to July 1st, too frequent presence on the reserve is not desirable until the birds have become thoroughly at home. A plot of ground treated as described and set apart for a bird reserve ought to begin to show practical results in the second year, and it will be surprising what a tremendous difference in bird numbers can be made by a little attention to their needs. That this attention will give a subtheir needs. stantial return in dollars and cents cannot be gainsaid, while for those fortunate country residents who already love the birds and desire their presence the results will be a constant joy.

Middlesex Co., Ont.

W. E. SAUNDERS. Middlesex Co., Ont.

#### Sugar Cane.

A few days ago we received the following lot of enquiries on sugar cane which we passed on to a valued subscriber who has had considerable experience with this crop on his farm. These are

Kindly publish in an early issue of your paper an article on 'Sugar Cane', answering the fol-

lowing questions:-1. (a) What is the average yield per acre of corn? (b) What is the average yield per acre of

sugar cane? 2. How do they compare as to food value?

3. Is it best sown in drills or broadcast, and

how many pounds per acre? 4. How is the best way to handle it, after cutting, in silo, shocks, or can it be stood up in

barn?

5. What is price of seed, per pound, and where could I secure it?

6. Will the seed mature in Ontario?

7. Will it do to sow it with the spring grain, and at the same time?

I will give some of my experience with the growing and feeding of sugar cane, both for the benefit of your correspondent, and the general

reader who may be interested. He asks for its average yield in comparison with that of corn. With me it invariably outyields my corn crop, which is of the large White Cap Yellow Dent variety, by at least one-third. By actual measuring, weighing, and estimating I have had 28 tons of sugar cane per acre on four acres of loam land, while the gravelly end on the one side and the clay end on the each produced 19 tons per acre. The gravel end ripened at least four weeks earlier than the clay end. I give this information as showing the sugar cane's aptitude for different soils. I had them all in the same field and all had exactly the same treatment. The cane has its preference among soils but will do fairly well on any but

a cold one. As to the feeding value compared with corn. It should never be silved unless as a by-product after the juice has been extracted for the manufacture of sorghum syrup. But it is in every respect superior to dry corn fodder. On account of its saccharine nature it is more fattening, much more relished by all kinds of stock, can be handled and fed most satisfactorily without going through the cutting box, thus saving much labor and expense, and when harvested at the proper time, and well cured, practically nothing remains unconsumed by the animals.

My method of harvesting is to cut with corn binder and always before frost in the fall, put up in large shocks, leave in field and draw as needed for two or three weeks feeding.

To grow for winter feed, drill in as corn, in the first half of June, from five to ten pounds per acre, and cultivate as corn, hoeing once as it is rather slow germinating, and rather weak to start, the weeds have a better chance to make headway, but after that one hoeing, the sugar cane will look after itself and the weeds too. you have tried to smother out Canada thistles with corn and failed, just try sugar cane.

Will the seed mature in Ontario? I have no trouble now maturing it perfectly here in Middlesex ('o. When I started with it 13 years ago, I would take precaution to keep seed over for fear it might fail to ripen and I would consequently lose the naturalized stage to which I had brought it during the previous years. But now I have it so far acclimatized that I am even more certain of it than of my corn crop.

Seed from the United States and prices may be obtained from most of the seedsmen advertising in this paper, I think. I have not heard of any Canadian-grown sugar cane seed for the trade excepting the limited quantity I produce and dispose of each year.

It is quite satisfactorily sown, according to Prof. C. A. Zavitz, O. A. College, at the rate of 30 pounds per acre, with 50 pounds oats and 8 pounds clover seed, for a summer pasture, leaving the field seeded for a clover crop the following year.

Middlesex Co., Ont., EDGAR M. ZAVITZ

#### Tree Planting.

Editor "The Farmer's Advocate":

As a person travels from place to place, throughout old Ontario, which is now but sparce ly timbered, and notes the logs and wood, piled in large quantities at saw-mills and railway sidings, he or she must be impressed with the fact, because I believe it is a fact that it is a shortsighted policy to-day, to further reduce the standing timber without planting at least two trees, for every one that is being cut down, yet we find very little planting being done, (comparatively speaking). But some one says my bush is fast blowing down, while that may be true, is it just because the bush is small and exposed, or is it because the stock is allowed free access to it and have kept down and killed the undergrowth, thereby destroying that network of fibrous roots that unite and help one another in bonding the earth together around the roots of mature trees. This I believe is as great a cause as the smallness of the area in timber. I had hoped for legislation before now along the lines of exemption from taxation of a limited number of acres on each lot or a bonus for trees planted, or some thing else that would eventually improve condiand no doubt such a move would be of general benefit to this province. Another thing that also impresses me, is the lack of protection around buildings. Only a very small percentage of farm buildings have any protection against wind, and if we are to take the past twelve months, especially March 21st, 1913, November 9th, 1913 and March 2nd, 1914 as any guide, the wind is getting worse and playing greater havoc each year. It is every man's duty to plant a substantial shelter belt around his buildings, which will be a beauty spot, as well as a great benefit in a very few years, but some one says, "I am too old to do that. It wouldn't do me any good in my lifetime". would say, the trifle that this shelter belt will cost you, will grow into a much greater legacy to hand down to future generations than its cost would if put on interest, besides the untold benefit to the community and to the province. R. H. HARDING. Middlesex Co., Ont.

## THE DAIRY.

#### The Successful Production of Milk and Cream for City Consumption.

Editor "The Farmer's Advocate":

The ever increasing consumption of milk and cream in the cities of Montreal and Ottawa, to say nothing of our towns and villages, has, and is creating a vast change in the output of dairy products in Eastern Ontario and Western Quebec. A few years ago the creamery and cheesery were the only markets for our cream and milk, outside of a comparatively few producers within easy reach of these cities. In many places the creamery and cheesery have been closed; especially is this true of sections through which a railroad passes, the milk now going to the city where a higher price is realized. Montreal's milk supply was not so many years ago all produced on the island. With a city pushing its boundaries on three sides and increasing her population at the rate of over 50,000 per year, much of the land used formerly for milk production is now sold for building and other purposes. sequently the city has to go further afield for its milk supply, and depends largely on the railway to bring in the milk and cream required for distribution. The city of Montreal consumes daily 60,000 gallons of milk, 75 per cent. of which is brought in by rail. This is supplemented by brought in by rail. over 4,000 gallons of cream, used as sweet cream and for the making of ice cream and butter. This represents the production of 1,800 one-hundred-acre farms situated within a radius of 100 miles of Montreal. The city of Ottawa consumes daily 10,000 gallons of milk and about 500 gallons of cream, only four per cent. of which comes in by rail. This represents the output of 300 Thus Montreal and one-hundred-acre farms. Ottawa takes the output of milk and cream produced by 2,100 one-hundred-acre farms.

It would be interesting to know just how many of the men on these farms could be termed

successful milk producers. I fear not as large a number as we would expect. You ask me to define what I mean by the term "successful milk producer." It is the farmer who meets the conditions imposed by the city; who furnishes his customer with a milk or cream of good, uniform quality, and from which he realizes a return for his product that will give him a reasonable profit on his labor or investment. What are the de-mands of the customer? That he be furnished with a milk (free from objectionable flavors, odors and sediment, and containing a fair amount of butter fat, and comparatively low bacterial count. In other words it must be clean milk. Whatever may be said to the contrary, it is no easy task, especially in winter, to produce clean milk. To do so means an additional outlay of time and money, and to meet this extra expense an extra price should be paid.

Clean milk should sell for more than unclean milk, and any factor which furnishes a good market for quantities of clean, sweet milk tends towards the elevation of the sanitary plane in the production of all milk. With this end in view city authorities have adopted regulations, which are not over exacting, governing the production, transportation and distribution of milk. have inspectors whose duty is to see that these regulations are enforced. Their work usually is regulations are enforced. not high handed, but rather educational, and it is only when the producer refuses to meet the conditions demanded and continues to supply inferior or dirty milk that the city authorities refuse to allow his milk to be sold for consumption.

In the two cities previously referred to, let us see how the producers are meeting the conditions called for, judging from the output of their dairies as it is delivered to these cities. From reliable information, as to the quality of the milk supplied to Ottawa, I have reason to believe that nearly all the milk distributed grades first class, as determined by a bacterial count, sedi-ment test and also a test for butter fat. Montreal cannot make as good a showing, as from information secured from a reliable source, gives 40 per cent. of the milk supplied as first class, and 60 per cent. as second class. This is a deplorable showing, especially when we realize that milk is one of the most widely used articles of diet, and the chief food of many a delicate babe or invalid struggling for life. Who is to blame for this state of affairs? Surely the producer. Methinks I hear him say, "I am not paid a price sufficient to enable me to produce high-class milk." This is true to a certain ex-Ottawa dealers pay a higher price than do tent. the dealers in Montreal, which encourages the production of high-class milk, with the result that a greater per cent. of high-class milk is supplied. Leading Montreal dealers have refused to pay the price for high-class milk, which has tended to dishearten the producers who have gone to much trouble and expense in fitting their stables and dairies to meet the regulations imposed.

Montreal dealers say that \$1.30 per cwt. in summer and \$1.90 in winter, delivered at the home railway station, should satisfy the pro-Leading Ottawa dealers say ducer. worth \$1.70 per cwt. in summer and \$2.20 in winter at the dairy, and pay accordingly. Which city is more likely to receive the better milk? You may draw your own conclusions. The Montreal Milk Shippers' Association, comprising the leading milk and cream shippers from the district surrounding Montreal, fixes a maximum price for milk and cream, and its members endeavor to maintain that price, but all do not get it. Even many of its members who produce a first-class article have difficulty in getting a price equivalent to the product delivered. It should not be expected that poor milk would sell for the same price as a good article. Therefore, milk should be graded by the city authorities into three classes, sanitary or certified, standard and market milk. The latter, to safeguard the health of the people, should be pasteurized before it is delivered. This grading would be an incentive to the farmer to produce milk of high grade, as he would be paid according to its quality, and equivalent remuneration is the first element that leads to the successful production of milk.

How may the farmer produce a clean, wholesome milk that will keep well until delivered, possibly 24 or 36 hours after it is milked? By observing two things, cleanliness and cold. Of course, in this article we presume that the producer has healthy cows. A certain writer on this subject said, "All animals from which milk is produced for human use should be certified by a veterinary surgeon as healthy, -sound internally and externally,-free from anything objectionable in the way of skin or teat trouble." lieve in testing the herd at least once a year with tuberclin, and if any reactors are found, dispose of them to the butcher. In other words have clean cows physically.

While nearly all city regulations require not less than 500 cubic feet of air space for each and mal in a dairy barn, yet it is not essential in our rigorous climate that each animal be given this amount of space, provided there is good

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ventilation in the stable, and it is well lighted with at least three square feet of glass per cow. Sunlight is a great microbe killer, and is the enemy of tuberculosis. The next essential is a clean stable. Modern stables are more easily cleaned than those erected a generation ago. They should have easily cleaned floors, and as few places to gather dust as possible. With a clean stable there should be a clean animal, but grooming is also necessary to keep the cow clean and healthy. No other animals should be kept in the same stable with the cows, as offensive smells will arise which will effect the flavor of the milk. Newly drawn milk, in open pails, readily absorbs all foreign odors, and heavy feeding of strong smelling stuffs, immediately before milking, especially should the stable be warm or badly ventilated, is responsible for many com-plaints of off-flavored or gassy milk. The stable should be well ventilated before milking if a clean, delicate-flavored milk is desired, as no amount of filtering or straining will ever make a contaminated supply quite the same as one which has been clean from the very first. The milkers should be scrupulously clean, bodily and in dress, there is no excuse for dirt on hands or nails. Clean water, a brush and towel, with soap and a little energy will remove that.

The milking utensils should be faultless in construction, easily cleaned, and of good metal. On no account use deep-seamed, old or rusty pails, and use only the small-mouthed pails. The cow's udder should be wiped with a damp cloth just before milking. The milking should be done quickly and with dry hands. The milk should be removed to the dairy as soon as drawn from the cow, strained and cooled as quickly as possible to 50 degrees, and put in the vessels for transportation, and kept in a cool place. It is safer to seal the cans so that the milk cannot be tampered with while in transit on wagon or car.

Between the producer and the city dealer there is a factor sometimes lost sight of,—the railway companies. Their arrangements for the care of milk at stations and in transit are far from adequate that such a valuable food product de Milk is brought in late in the day, and empties are frequently one or more days on the return journey. They never forget to make the farmer do his part of the work, in loading or any other possible way. Many of the employees of the companies and others seem to think it their duty to sample cans of milk passing through their hands, thus infecting milk that was originally clean. The producer may have all the foregoing worked out to a successful completion, and yet miserably fail as regards profit, f he has not a good business herd of cows. Clean milk and big prices are all very well, and sound like profit making, but if each individual cow in the herd does not give a large and steady flow of milk, at a minimum cost of feed, the profits are not what they should be. The day of the four or five-thousand-pound cow is gone, for the successful milk producer. His herd must be composed of cows having a capacity of not less than seven to ten thousand pounds of milk per year. Not more cows but better cows would enable the milk producer to better meet present day regulations and conditions pivot on which turns the wheel of success for the producer of milk for city consumption. Huntingdon, Que. W. F. STEPHEN.

## The Sire's Place in the Dairy Herd. Editor "The Farmer's Advocate":

That the sire is 'half the herd' is probably the most quoted statement in dairy literature. Few people realize the full truth of this statement, still fewer fully realize the money difference between two sires, one of doubtful quality, and one bred from a milking family, and more particularly from a dam with a known record for high production.

Most dairymen who have large herds of milk cows know the value only too well. They even go so far as to keep a herd bull until some of his offspring are producing milk and butter fat, and measure him by his offspring. This is the final test, and were it not for the time and expense required it would be a satisfactory method of judging a male to get high producers. The fact that breeders do not find more ready sale for aged bulls of proven value, is one of the regrettable features in the country-wide movement for improvement.

Let us see what the average breeder does. When he has to pay from \$100 to \$200 or more for a good bull he looks at the difference and uses the cheaper bull. Many of the poorly-informed dairymen even go to the extent of using a scrub bull because they cannot see the dollar lying quite close behind the penny. If we buy a bull for \$75 the interest for three years at six per cent. would be \$13.50. We sell him for bull beef and get perhaps \$100 if he has size and is in good flesh. This would be a gain of \$11.50. Suppose we have the choice of buying a pure-

Suppose we have the choice of buying a purebred Jersey, Guernsey, Holstein, Ayrshire, or other dairy-bred animal for \$400. He comes from, say, a dain giving 400 pounds of butter fat. The interest for three years at six per cent. would be \$54. He will be worth \$100 to sell to the butcher. There would be a loss of \$354.

But is that all? Does not that measure the Well, most readers would say it did difference? not, yet few realize fully the significant facts behind the two animals. The first animal will probably produce heifers as good as the dams, perhaps a trifle better, perhaps a trifle inferior. What will the higher priced sire do? For the sake of argument it is quite within the bounds of reason that with the average herd of milk cows he will increase the yield of milk of his offspring two pounds night and morning. Not much you say. No, but it is enough. It would be four pounds daily. This would mean for 325 days milking period 1,300 pounds of milk. Thirteen hundred pounds of milk testing four per cent. would mean 52 pounds of butter fat. 25 cents a pound would mean \$13. Thirteen dollars would measure in money one year's increased production in daughter over dam. kept for eight years it would amount to \$104. no reasonable doubt as to the greater final money value of the high-priced animal. If he is the right sort and produces the right progeny at the end of the three years service, he ought to be worth just twice his purchasing price to someone who can measure value.

In this connection it might as well be made plain to the breeders of pure-bred dairy stock that the buyer is being fast educated up to the point where he will not buy a sire unless the seller can show him in black and white the record of the dam. Neither is the buyer going to be long suited with seven-day records and short tests, but will demand the yearly record of all near related females.

nn. JOHN BOWER.

## The Milking Machine in the Dairy Stable.

Perhaps no invention intended to aid the dairy farmer in his operations is more important and

more before the agricultural public, at the present time, than the milking machine. Labor grows scarcer year after year on the farm, and the demand for dairy products increases. Dairy farming necessitates consider able manual work, and the problem has been to get some suitable machine which will draw the milk from the cows' udders with no injury to the cows and with least possible inconvenience to the operator. Several machines have been or are now being perfected, and some of them are giving, according to men in whose herds they are operating, excellent results.

A few days ago we had the privilege of visiting an up-to-date dairy farm where a milking machine is installed, and milks the cows night and morning. John Dawes, of Middlesex County, Ontis the owner of one hundred acres of excellent farm land, and of a herd of upwards of twenty cross-bred Holstein and Shorthorn cattle, of which any one might be proud. Up to a short time ago he was forced to milk the cows, then twelve in number, by hand. Having on his premises a four H. P. gasoline engine for grinding he foresaw that by installing a milking machine, if it could be made a success, he would be able to increase his herd and manage the larger

number of cows with less labor than was then required for the dozen milkers. Accordingly a machine was installed, and a small one and one-half H. Three units and an extra pail were purchased, making it possible to milk three cows at a time; or if more unita were required, as the machine places the load on the engine with an alternating back and forth stroke six cows could easily be milked at once with this small engine. With the three units now used it would be possible for one man to milk twenty-five cows per hour. The cost of gasoline to run the small engine an hour is only three cents, which is very low. So far the machine has been, as considered by the owner, a success. Up to the present no stripping

after the machine has been required, a little skilful outfit making operation of the it possible to draw off almost the last drop from the cows. It has been operating a little over two months and a half, and no repairs or expense have been necessary so far. No sore teats or swelling of the udders has been caused by the machine, and the cows stand contentedly chewing their cuds while having the milk extracted. So far no difficulty has been experienced in keeping the machine clean as it is simple in construction, and in operation the dairyman has very little to look after with

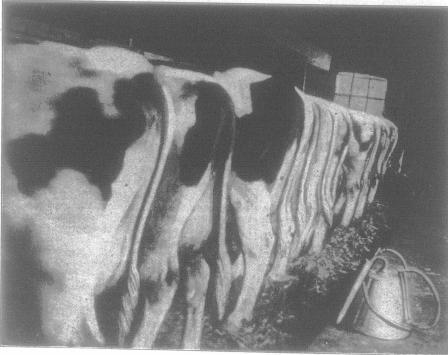


Home of a Middlesex Co. Dairyman.

Residence of John Dawes.

Suppose the bull was used on a herd of twenty cows, the law of chance would mean ten females yearly, and the three-year use of the sire would mean about thirty heifers. Multiplying the increased money value from one heifer, we have the startling figures of \$3,120. From this we subtract the difference between the interest and depreciation charges of the two animals, and we still have the total of \$2,754, as the money difference in the production of the two sires, the dollars behind the penny.

It is possible to use the sire with sixty females in place of twenty. This would mean a grand total of \$8,263.50, and this does not take



A Fine Row of Cows.

Cross-bred Holstein cows in the herd of John Dawes, Middlesex Co., Ont., and a unit of the milking outfit which milks them.

into consideration the effect in increased production in the grand-daughters and future generations. But that is not all. The sire has just as many possibilities in decreasing the value of the progeny of a herd. Suppose you have a herd of high-producing cows and you use a sire, which through his blood decreases the production two pounds night and morning, he has just as much chance of losing you the same amount. The sire makes or mars a herd. Figures, you say. Yes they are figures. There are a lot of things not taken into account, but there can be

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ell be made dairy stock d up to the unless the white the buyer going records and dly record of BOWER.

e Dairy

id the dairy portant and the agri-blic, at the e, than the chine. Lascarcer year n the farm, emand for oducts iniry farming consider work, and m has been suitable hich will ilk from the s with no e cows and

possible into the Several mabeen or are perfected, f them are ording to o se herds perating, exts.

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vs night and ounty, Ont. of excellent of twenty cattle, of to a short cows, then ng on his for grindnilking mae would be the larger vas then rethe dozen Accordingly was in nd a small one-half H. e units and pail were making it to milk

cows at a more unita red, as the places the the engine alternating nd forth cows could milked at this small th the three now used it possible for n to milk cows per ne cost o run the ne an hour hree cents, s very low. he machine as considne owner, a Jp to the o stripping nachine has red, a little it making the last en operatd a half,

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achine clean n operation after with the exception of the teat cups. Each cow is milked separately, and there is a perfect release with each back stroke of the pump. The cost of installation was about \$200.00, not including

To show the value that this dairyman places on the machine, and the value which milking machines should be if they are a success on all the dairy farms upon which they may be installed, we have only to point to the fact that previous to installing the machine the largest number of cows which he was able to keep and look after satisfactorily was twelve, whereas now that he has the machine installed the herd is to be increased to twenty cows, which will not in any way be a heavy burden upon the same number of men on the farm, and milking will be a pleasure

instead of hard labor. The milk from this herd is sent to the powder factory nearby, and the proprietor estimates that his cows turn him in an average of \$100 each annually. The milking machine means to his farm an increase from the dairy branch of the operations of \$800 annually. Milk sells at an operations of \$800 annually.

average of about \$1.40 per hundredweight. It runs down as low as \$1.10 in June, and up as the winter months. The high as \$1.60 during the winter months. cows are kept thoroughly comfortable, and everything possible is done for their welfare. are well fed, kept bedded down nicely, and during the winter months are curried once each day. The stable is clean and light, and everything in the surroundings points to successful dairying. The four H. P. engine previously mentioned is used to grind all feed necessary, and while about the chores the engine is started, and keeps suffi-cient chop on hand to feed all the stock. Thus cient chop on hand to feed all the stock. no time whatever is lost in preparing feed, as the grinder is operated during chore hours alone. He is well pleased with gasoline as power on the

The illustrations herewith reproduced were taken by "The Farmer's Advocate" camera in Mr. Dawes' stable. The one showing the milking machine attached to the cow is particularly good, and from this cow was milked, in the presence of the representatives of this paper, 30 pounds of milk in four minutes, and she seemed to be milked perfectly dry. This is an especially good cow, representative of the herd. She gives 60 pounds of milk daily. Some idea of the class of cattle in the herd may be had from the illustration which shows one-half the length of the stable, and "the new hired man" standing behind the cattle. The house and surroundings depict prosperity, which is so often seen where up-to-date dairying is carried on. This is one man who considers the milking machine the greatest boon the dairy industry has had in recent years. There may be some little things in connection with it that need perfecting, but he considers that it is, as at present manufactured, efficient and that dairymen are safe in installing it in their stables.

## POULTRY.

## Prince Edward Island Egg and Poultry Association

Editor "The Farmer's Advocate":

On Wednesday, March 18th, the Poultry Industry received another impetus in Prince Edward Island. On that day, a Provincial Association was formed by 39 delegates, representing 40 Egg Circles, with the following officers: President, T. A. Benson; Representative Poultry Division, Secretary-Treasurer, and nine directors, three from each county.

The following day, the Honorable Murdoch Mackinnon, Commissioner of Agriculture, presented a bill in the legislature to incorporate the He explained that there were at present forty Egg Circles organized and at work. Their sole purpose was to take better care of their eggs, and to insure the best quality being placed on the market. They gathered the eggs regularly, and shipped them without delay, so, that they reached the consumer in the best of Already about 60,000 dozens have condition. been shipped under their regulations, and they have given the best of satisfaction to customers and have netted the producers over \$2,000 more than they could have received by the old method of marketing. The whole Province is organizing and the Act would give them the right'to a trade mark which would enable them to guarantee their products on the market. The delegates to the convention were most enthusiastic over the outlook and welcomed suggestions from Messrs. Brown, Benson, MacKinnon and others. whole day was spent in earnest consideration. It is worthy of note that over 42,000 dozens of eggs were shipped by one firm since January, whereas practically none were ever shipped before in this period from this Province.

## Results of the Egg Laying Competition.

The Third Philadelphia North American International Egg-Laying Competition concluded its nineteenth week on Warch 13th. This competition is made up of pens of fowls from the various states of the Union, Canada and England. There are in all one hundred pens entered with five hens in each pen. During the week ending March 13th, the highest record for the week was thirty eggs from one pen. This is quite a satisfactory record, if they do not desire to work on the seventh day. This is one egg per day per hen for the six working days of the week and the single-comb White Leghorns are to be credited with this strict observance of the Day of Rest. This pen of fowls is owned near Preston, Eng. To date, a pen of White Wyandottes is in the lead with a total record of 414 eggs. This pen

of Wyandottes is owned by Tom Barron, near Preston, Eng. The nearest competitor is a pen of single-comb White Leghorns, owned in the same community, which has a record of 389 eggs for the nineteen weeks.

## Results of Good Management With a Flock of Hens.

Editor "The Farmer's Advocate":

Another instance showing the profits that may be expected from a well managed farm flock of hens, is shown by the report of Mrs. S. L. Brown Manager of the Demonstration Poultry House, under the general supervision of the Department of Agriculture, Whitby. During the fall of 1911, arrangements were made to build a poultry house ten feet by twelve feet, single-boarded with battens over the cracks, to accommodate thirty birds. Barred Rock Pullets of a bred-to-lay strain were used. Excellent results were obtained for the year of 1911-12, and better results for the following year. The detailed report for the year ending October 31st, 1913, is as follows:

Month E November December January February		Cash Received. \$ 1.32 18.90 12.56 11.92
March	666 659	11.95 10.29
May	472 391	6.68 7.17 6.44
August	313 295 160	6.30
September October	39	1.04
Total		\$93.30.
hatching in season per doz	@ 35c to	50c

		Total	 \$112.27
FOWL	PRODUCED	FROM	STRATION

17 cockerels sold for breeding @ \$1.25 1 cockerel '' '' @ 2.00 6 pullets '' '' @ 1.00 6 pullets '' '' @ .75 6 cockerels dressed, 82 lbs. @ .20 48 cockerels dressed, 268 lbs. @ .18	\$21.25 2.00 6.00 4.50 6.40 48.24
	\$88.39
ON HAND.	
85 pullets valued at \$1.00	\$85.00
CONSUMED AT HOME	
25 fowls valued at 50c,	12.50 \$185.89
EXPENSES.	
Feed for 6 months, 31 birds at 11c per bird, per month,	\$ 20.46
	889 06

20.56	Eggs for hatching, 705 @, 35c per doz. Coal oil used in incubator, Food for growing stock at a cost of
66.45	7ic per lb. live weight
\$129.57	
	SUMMARY.
\$298.16	Value of eggs produced, \$112.27 Value of poultry produced, \$185.89

V & 1 d O 1	pour s			
Expenses.	food, etc.	for laying		
stock,			\$ 89.06	
Trnompos	food etc	for voung		0400 #
stock,			\$ 90.51	\$129.5

The parent stock, consisting of thirty twoyear-old hens and one rooster, is still on hand. During the winter and spring months, until the hatching season was over, the hens were confined to the house, and a medium sized run. After

June the first, they were allowed free range.

Net Gain, ...... \$168.59

The winter feed consisted of whole oats and barley mostly oats, with a little wheat in cold weather. A dry mash consisting of ground oats and barley, shorts and bran, was kept in a hopper before the birds at all times. Mangels were used for green food and buttermilk and water supplied for drink. Grit, oyster shell and a little charcoal were also supplied. The summer feed was the same as for winter, without corn, buttermilk, or mangels, and very little dry mash. During the late summer months, the hens were allowed free range on stubble fields and very little grain was fed.

The flock has demonstrated what good care



In a Middlesex Co. Dairy Stable.

The milking machine drawing the precious fluid from the udders of cows in John Dawes' stable.

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with careful breeding and systematic selection will do. The system of feeding, followed, is simple, and can be easily adopted by any farmer. All feeds are fed dry, and the water and buttermilk are fed separately. By this method, the labor of mixing up mashes is avoided. Regularity in feeding, plenty of light and exercise, cleanliness and good wholesome food, such as can be grown on every farm, are some of the main factors emphasized in the care of this flock.

Great care is exercised in selecting the birds to remain in the flock. Small, slow-maturing and off-type birds are disposed of, when young, and only well matured typical birds are kept for laying. These hens are mated with males from the best bred-to-lay flocks obtainable. The best of the hens from last year's flock of pullets are being used for breeding stock this year. As far as possible, no bird is kept after two years old.

A glance at the foregoing report reveals a net This perhaps profit of nearly \$5.50 per bird. would not be practicable with a large flock, owing to the difficulty in caring for the young stock. A further study of the report shows a net profit of \$1.85 per hen for eggs alone, even when sold at ordinary market prices. This is a very satisfactory profit per hen, and there is no reason why equal profits should not be obtained with much larger flocks. R. M. TIPPER. Ontario Co., Ont.

## HORTICULT

The Scab Disease of Apples.

Editor "The Farmer's Advocate":

A bibliography by Prof. Errett Wallace was published at the Agricultural Experiment Station of Cornell University last summer on the "Scab Disease of Apples." This little book covers the subject in a most exhaustive manner, and a magazine article on the principal points brought out should be of interest to the readers of "The Farmer's Advocate" who have not had the most perfect results in their endeavor to grow clean The experiments cited refer more particularly to the State of New York, but their conditions are so like our own that the conclusions arrived at should apply with equal force to either Ontario or Nova Scotia.

In 1904 a study was made of 564 orchards containing 4,881 acres. The average net gain from spraying three times was \$40.23 an acre. Another count was made including only those orchards that were otherwise well cared for; the net profit in this case was \$74.23 an acre. This is what should be expected, since trees properly cared for are better able to produce a larger quantity of fruit than those not well cared for. Ordinarily the reduction in quality of scabby apples is considered to be the main cause of loss, but this, however, is only one of several factors. Early scab infection, if not controlled in some years, almost entirely prevents the setting of fruit, and also reduces the size of individual apples. It was noticed in two epidemic years of scab that apples from unsprayed trees were ller than those from sprayed trees. uniformly sma Another important factor is in the keeping quality of the fruit, and in the devitalizing effect on the tree after a case of severe leaf infection; prevents the formation of fruit buds for the following year, and hinders the normal wood growth, which is the basis for future crops.

Apple growers have believed for years that cold, wet weather during the blossoming period, is the cause of failure of fruit to set; there is ample evidence to prove, however, that in some years (as in 1913) the scab occurs on the blossom stems, and causes the blossoms or young It is even claimed by one authorfruit to fall. ity that cold rains at blossoming time are not a factor in the setting of fruit. In a bulletin published in 1895 Prof. Bailey says, "The impublished in 1895 Prof. Bailey says, mediate cause of most of our apple failures the last few years, is undoubtedly the apple scab fungus. And again, 'The best proof that the apple scab fungus is the immediate cause of the greater part of the apple failures of Western New York, is afforded by the fact that thorough spraying with Bordeaux Mixture is usually followed by a great increase in the productiveness of the orchard." While Prof. Bailey does not say just how the disease so greatly injured the crop, there is no doubt the decrease was brought about by the occurrence of scab on the stems of the blossoms or young fruit at an early stage, causing them to fall.

Another authority, Selby in 1910, states that scab often causes the young fruit to fall, and that often this falling or failure of the fruit to which is attributed to frost injury or poor pollination, is really due to scab.

The spores that carry the disease over the winter exist in little sacs in the dead leaves on the ground, and only begin to mature at or about the time the apple blossoms are ready to open. Mature spores were first found at Cornell on May 4th, in 1908, and in 1910 on May 1st. the blossoms were about to open in each case. These spores do not all mature at one time, as

the ripening process may continue for about a month. The description given by Prof. Wallace of the method of studying this spore discharge is most interesting; glue-coated slides were placed in an inverted position over moistened leaves containing the spore sacs. A study was made as to how many would be discharged in a given time from a given area of leaf surface; how soon after wetting the leaves the discharge would begin; how long it would continue, and how long a single sac would continue to discharge spores. The most spores were caught on the slides placed only one half a centimetre, or about one-sixth of an inch above the leaf. From a fragment of leaf one centimetre square 5,630 spores were discharged in forty-five minutes. From this it is estimated that if the surface of the ground beneath trees set 40 by 40 feet apart were covered with old leaves, there might be 8,107,000,000 spores discharged for each tree in three-quarters of an hour of wet weather. This ought to be enough to account for any early infection. discharge of spores began within five minutes of the time the trees were wet, showing that spore shooting begins almost as soon as rain begins, and if kept continually wet it was found that a single leaf would continue to throw off spores for about ten days. It is probable that in nature some leaves would be found that would continue even longer than this, and the fact that from some leaves operations would begin earlier than from others would lengthen the period still

Prof. Wallace artificially inoculated leaves to see if he could learn the time of development. On leaves inoculated May 16th scab first appeared on May 24th, on May 23rd no scab was On May 28th many infections showed on each leaf, while only a few spots could be found on any uninoculated leaf. From the inoculation on May 26th scab first showed on June 12th. The period of inoculation would then be from eight to fifteen days. At Cornell in 1908 the first natural infection appeared on May 22nd; as the mature spores were found on May 4th, they assume that some infection occured during the rains of May 7th, 8th and 9th, since these furnished the most favorable conditions for infection after the spores had matured. This gives a period of thirteen to fifteen days. Favorable weather for infection also occurred on May 13th and 14th; in this case the period would be from eight to nine days, which corresponds with experiments made earlier in the season. At Sodus 1910 spores began to mature about May 1st. Rain fell on April 29th, and on May 2nd and 8rd there was three-quarters of an inch of rain, with good condition for scab infection. Scab first showed on the leaves on May 12th, giving a possible incubation period of from nine to thirteen days. There were weather conditions that would permit infection earlier than this date, but there are two reasons why the experimenter does not believe that any occurred before May 1st. First, no spores were mature before May 1st, and second, no scab appeared on foliage sprayed on April 29th.

As the first spot showed on May 12th, secondary infection could take place at the first favorable time after this. On May 24th rain fell heavily followed on the twenty-fifth by cloudy, misty weather; scab appeared abundantly on June 7th, showing an incubation period of about thirteen days duration. The amount of rainfall is not necessarily the important item in determining whether or not a certain rain permits infection; a more important factor is the length of time the trees remain wet. The ideal condition for infection is a gentle continued rain, followed by cloudy, calm weather and a saturated atmosphere, in which case the spores are kept wet for long time while in one position. Any condition, such as poor air drainage, or dense foliage that prevents prompt drying out of the trees after rain has ceased, is most favorable to scab development.

The following table should be carefully studied to understand at what stage of the development the buds scab infection is likely to occur:

Correlation of the first appearance of scab due to primary infection and the date on which the infection probably occured, with the development of spores and of fruit buds.

Condition of Date of first apbuds at date of pearance first appearance of scab. of scab.

May 22nd Petals falling May 12th Mostly in bloom. May 7th to 9th May 2nd to 3rd.

Probable date of

infection. Wet

weather.

May 1st. Ready to open

when ma-

were first

ture

spores

found. May 4th.

Prof. Wallace believes that leaves and buds are susceptible to infection as soon as they are exposed, but that infection does not occur until the spores have matured, or until the first appearance of weather conditions favorable for infection following the maturity of the spores. According to his experience, from three year's observation, the spores do not reach maturity until the blossoms are either opening or just ready to open, and, therefore, that there is little dan-

ger of infection before this time. Scotia this last season, infection took place much earlier than this, as proved by experiments of the Government Horticultural Station at Kentville. Spraying on May 8th just as the leaf buds were unfolding giving practically perfect results, while where the application was deferred until May 20th, just before the blossoms opened, twenty per cent. of the apples were spotted. As everyone knows this was most exceptional season, for on account of cold backward weather, the time between the opening of leaf buds and blossom buds was nearly twice as long as the average.

Many have noticed that the leaves of blossom buds become scabbed earlier than the leaves of leaf buds. These leaves are the first to open in the spring; they are exposed to the earliest infection, while those from leaf buds do not appear until later (ten days) and thus escape it. The leaves from fruit buds are exposed to both first and secondary infection, while those from leaf buds are for the most part subject only to the secondary attack. The first spore infection, however, is often not severe in itself, but it is the original source of the secondary infection which is usually much more abundant, and which causes most of the scabby fruit as well as the greatest leaf infection.

From his experiments Prof. Wallace came to the following conclusions: Early infection is caused entirely by the wintering spores on the dead leaves, and may appear during the first period of weather favorable to infection occuring after the spores have matured; usually not until blossoming time or a little before. There is little danger that infection will occur much earlier, not because the leaves are not suscept-

ible, but rather because the spores are not ripe. The period of incubation may vary from eight to fifteen days, and after this period has elapsed a second crop of spores is produced, which may cause infection again eight to fifteen days after weather conditions favorable to their development; this generation may in time produce another and so on throughout the season. However, the various infections do not always occur in successive jumps at intervals of eight to fifteen days as might be inferred from the fore-The first crop of spores do not all mature and discharge at the same time; they begin to ripen at about the time indicated above, and furnish a constant source of infection for a month or more. Thus individual infections belonging to the first generation may be started at several different dates, and produce their first crop of spores at different times."

After finishing the study of the life history of the scab, Prof. Wallace takes up the most im-portant subject of control. He says,—"While there will always be enough fallen leaves exposed to permit infection, still if the orchard is plowed late in the fall or early in the spring, it is probable there will be much less danger from the early infection occurring about blossom time.

A striking demonstration is cited bearing on this point. Two McIntosh orchards were under observation for several years; both were seriously effected with scab each year, and the loss from this cause was about t orchards were in sod. About the middle of April a fire started from a sugar camp, swept over the entire area of one of these orchards. Not a scab spot could be found in this orchard the following summer, while the disease was quite common in the other orchard.

Pruning is also an important factor in controlling scab; the denser the foliage of the tree the more slowly it dries out after a rain, the better is the opportunity for the spores to germinate and cause infection. But it is certain that notwithstanding all the precautions that can be taken, by destroying dead leaves, correct pruning, etc., clean fruit cannot be grown unless the trees are properly sprayed. The problem is to find the best fungicide, and to learn how and when it should be applied. The best authorities now agree that to control scab, lime-sulphur and Bordeaux are equally efficient, but lime-sulphur has the advantage in other ways, as it does not susset the fruit and is more easily prepared. When to spray is now the most important question, and to know when infection occurs is to

Condition of

buds at prob-

fection.

able date of in-

Almost opening

know when to spray, for the fungicide must be As we have applied first in order to prevent it. shown, infection usually occurs when the blossoms are about to open, so spraying to be effective must commence a little before this, or when the buds are first beginning to show pink. Two applications, one immediately after the petals fall, and another two or three weeks later are necessary to prevent attacks from the secondary infection. The grower should watch, not only

In Nova took place ed by the Horticultural n May 8th giving pracst before the the applea this was int of cold. the opening nearly twice

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of blossom e leaves of st to open earliest inlo not apescape it sed to both those from ject only to re infection, f, but it is ry infection , and which vell as the

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tor in conof the tree a rain, the res to gert is certain utions that ves, correct rown unless problem is rn how and authorities sulphur and lime-sulphur it does not ly prepared. ortant quesoccurs is to

Date when mature spores were first found. May 4th. May 1st.

de must be As we have en the blosto be effecnis, or when pink. Two s later are ne secondary h, not only

the condition of his fruit buds, but also the cities, Ottawa for instance pass restrictive selweather, and attempt to get the spray on ahead of general storm periods if possible. Some growers delay the spraying until after the rain is over if rainy weather happens to be threatening at the time, thinking that the rain will wash off the spray. No worse mistake than this can be made, for it is during wet weather that the spray is needed to protect the tree from infection. The spray will not wash off so easily as is supposed; if it has twenty-five minutes in which to dry before any washing rain occurs, it will adhere well. In wet seasons, an application about August 1st may be necessary to prevent late infection.

Prof. Wallace does not find any evidence to prove that a dormant spray of lime-sulphur has any effect whatever in controlling scab. different years' experiments, it was impossible to detect any difference on sprayed and unsprayed trees, using a strong lime-sulphur wash.

The importance of making each application at the proper time is emphasized very strongly. Any grower having from fifty to one hundred acres of mature apple orchard who expects to do all his spraying with a single outfit, will find it absolutely impossible to comply with this requirement, since as can be seen, the time limit for the most effective application of each spraying usually does not exceed from four to five days. Every grower, therefore, should have equipment to spray his entire orchard within this time. The spray may entirely fail to control scab if delayed one or two days too long, thus permitting the infection to occur before the application is The effect of continued spraying from year to year is most important, and seems to have a cumulative effect on the vigor of the tree, and thus enables it to set a larger crop of fruit. The foliage being protected remains healthy and vigorous, and consequently the trees are able to produce a larger number of strong fruit buds. This bibliography, "The scab disease of apples," should be carefully read by every grower of

MANNING ELLS. Kings Co., N. S.

## Regarding Late Cabbage.

Editor "The Farmer's Advocate":

I note in a recent issue of your valuable paper, the question and answer regarding spring cabbage seed in drills, and leaving it there to mature. My experience is that it pays better to transplant, even if the labor is considerable. I have for several years sown my late cabbage seed in drills with a seed drill, around the middle of May. When from three to five inches high, I select good transplanting weather if possible, that is dull moist weather, before or after or even during a rain, if it is not too heavy, and transplant to thoroughly prepared ground, but always leave strong plants at proper distances along the row. These I cultivate equally as well as the transplanted ones, but they never produce the crop that do the transplanted ones. The labor of thinning and the waste of seed, and the possibility of having the plants not properly spaced to get good strong plants at the proper distances, especially if the seed is old or of poor germination, makes it much more profitable in my experience to transplant.

Regarding winter, or late cabbage, I was greatly impressed when on the market at London, twice in January, to note the great quantity of Danish Ball Head cabbage offered there. I believe this is the best late winter cabbage in existance, but it should be grown on strong clay, or clay-loam soil, to get best results. The soil should be rich in potash and phosphoric acid, and they should receive high cultivation. tendency to grow very long stems or stalks, is an objection to this variety, but there is another variety now on the market, the Danish Round Head, short stemmed that overcomes this difficulty, and this latter is not so particular as to soil, as the long stemmed variety. Perhaps the most popular variety of cabbage at the present time, is the Copenhagen Market, an early variety, a very even header of large size, and even maturity, points of great consequence to the market gardener, but owing to crop failure this past season, seed is exceedingly scarce this year and no doubt a great deal of substitution will be practiced. An excellent list of cabbages for the market gardener, given in order of maturity, are: Early Jersey Wakefield, select strains as Burpee's Select; Copenhagen Market; Henderson's Succession; Danish Round Head, or Danish Ball Head. There are very many strains of Early Jersey Wakefield, some of which are not very desirable, but Burpee's Select is a strain of early even maturing cabbage, very profitable to the market gardener, who may cut his entire crop in two or three cuttings. Henderson's Succession is a very fine cabbage, large and solid, but very much inclined to crack open.

I was much impressed with the amount of garden truck offered on London Market at the time I visited it. It seemed to indicate sane market regulations in force in the city. So many

ling regulations, and try to enforce them, such as are intended to prevent the farmer or gardener selling to any but householders before a certain hour. For instance Ottawa has a by-law supposed to prevent the producer selling to householders before 8.30 in the morning. progressive gardener who wants to get a favorable location on the market, must get there about 4 o'clock in the morning during the summer months. There he must wait till 8.30 before he can sell anything of consequence, as the householders, whom this ridiculous by-law is intended to protect by keeping the stuff there for them till 8.30, do not get around in any numbers till nine or later, but at 8.30 the dealers buy their supplies, which they should have been permitted to buy as early as they wish and get them away out of the road, when the householders do begin to come, thus permitting the grocers to be home, in time to supply their customers who cannot get out to the market. While, at present, the grocer cannot legally buy till too late to get his goods home for that day's delivery, consequently his customers are constantly getting stale goods, and kicking about the qual-Then while he may buy illegally, he cannot load up his stuff till the bell rings at 8.30, and this causes a terrible crush and hubbub for half an hour or so. The result of the inconvenience of this by-law, causing the producer to either stand around the market till 8.30 doing nothing without he does it illegally, as very many of them do, has driven a number of the largest growers off the market altogether. They now sell altogether to the shops. doubt in my mind, that had the London City Fathers tried to enforce a restrictive selling bylaw, the growers would do as they do at Ottawa, sell to the grocers, and leave the market altogether.

Carleton Co., Ont. W. J. KERR.

> How to Spray. Formulae for Fungicides.

I.—BORDEAUX MIXTURE:

Copper Sulphate (Bluestone) 4 lbs. Unslaked Lime ...... 4 lbs. Water ...... 40 gals.

Dissolve the copper sulphate in a wooden or brass vessel with hot water, pour into a barrel and add cold water to make 20 gals.; slake the lime, preferably with hot water; add cold water to make 20 gals. barrels well, and pour lime into the copper (Never mix concentrated sulphate barrel. milk of lime and copper sulphate solutions.)

A stock solution of each may be made and kept indefinitely if not mixed. Dissolve 40 lbs. copper sulphate in 40 gals. of water by suspending just below the surface of the water in a coarse sack. Each gallon of the liquid will now contain 1 lb. copper sulphate. Slake any desired quantity of lime and put into a box or barrel in shaded place, or sunk in the ground. Keep covered with water to ex-Calculate clude the air. quired for 4 lbs. lime if well stirred.

To test Bordeaux mixture, let a drop of ferrocyanide of potassium solution fall into a little of the mixture in a saucer, when ready. If this causes it to turn reddish brown, add more lime until no change takes place.

## II.-LIME SULPHUR WASH.

only).

Fresh stone lime ..... 20 lbs. Sulphur (flour or flowers)..... 15 lbs. Water ..... 40 gals.

Slake 20 lbs. of lime in about 15 gals. boiling water in a kettle or other boiling outfit. While slaking add the 15 lbs. sulphur made into paste by the addition of a little water. Boil vigorously, with stirring, for 1 hour. Dilute to 40 gals. with cold or hot water. Strain and apply at once.

2.-HOME MADE CONCENTRATED LIME-SULPHUR-This may be used as a substitute for commercial lime-sulphur, but is only about two-thirds as strong as a rule.

Sulphur (a fine grade)...... 100 lbs. Fresh stone lime, high in per-50 lbs. centage of calcium ..... Water ...... 40 or 50 gals.

Put about 10 gals. water in the boiling outfit, start fire, add sulphur, stir to make paste and break lumps, then add remaining water, and when near boiling put in lime. Stir frequently while slaking until all the sulphur and lime are dissolved. Add water from time to time to keep up to 40 or 50-gal. mark. Boil 1 hour, then strain through a screen of 30 meshes to inch into storage barrels. Make enough at once for a season's

Cover well to keep out air, or pour oil of any kind over surface to depth of inch for same purpose.

To determine how much to dilute for different applications use an hydrometer with specific gravity readings, and apply the following rule:

Put the hydrometer in the clear liquid when it is cold and the sediment has all been settled for a day or two. Note the number to which it sinks. Suppose this is 1240. The strength for use before the buds burst should be about 1030. To determine how much to dilute a strength of 1240 to get 1030, divide the three figures to the right in 1240 by 30, that is 240 divided by 30=8. means that each gallon of such a wash must be diluted to 8 gals. with water to give us a strength of 1030, the proper spring strength. For the second application 1009 is about the right strength. To get it divide the 240 by 9 which gives 26;, or roughly speaking 27. This means that each gallon of wash of the strength of 1240 must be diluted to 26% or 27 gals. to make the right strength for the second application. For the third application and any later ones 1008 is about the right strength and to get this we proceed in the same way and divide 240 by 8=30, so that each gallon must be diluted to 30 with water for this application. If the strength of the concentrated were 1212 or any other number, you would in the same way divide the three figures to the right by 30, 9 and 8 respectively to get the proper dilutions for each spraying.

#### TABLE FOR CHANGING BEAUME READINGS INTO THEIR EQUIVALENT SPECIFIC GRAVITY READINGS.

Beaume.		Specific Gravity.	Beaume.		Specific. Gravity.
18	=	1141	27	=	1230
19		1150	28	=	1240
20	windows distribution	1159	29	*****	1250
21	-	1168	80	=	1260
22	===	1178	81	=	1271
28	-	1188	82	===	1282
24	===	1198	88	===	1298
25	-	1208	84		1305
26	===	1219	85	===	1317

Note.—Commercial lime-sulphur should be tested with the hydrometer and diluted according to the same rules as the home-made concentrated form.

3.—SELF BOILED (chiefly for use on peach foliage). Fresh stone lime ...... 8 lbs. Sulphur (flour or flowers)...... 8 lbs. Water ...... 40 gals.

Best prepared in quantities of 24 lbs. at a time to get sufficient heat. Place 24 lbs. lime in a half barrel, add enough cold water to start it slaking well and to keep the sulphur off-the bottom. Dust the 24 lbs. sulphur over the lime, having first worked the sulphur through a screen to break whatever further amount of water is necessary to complete the slaking. Stir with a hoe to prevent the lime caking on the bottom. As soon as the slaking is over, add enough cold water to cool the whole mass and prevent further combination. Strain into spray tank. Keep well agitated while spraying.

1.-HOME BOILED (for use on dormant wood III.-DISINFECTANTS (for pruning tools and for wounds on trees) :-

1.—Corrosive sublimate, 1 part to 1,000 by weight=1 tablet to 1 pint of water. Apply with a swab on end of a stick.

CAUTION .- Corrosive sublimate is a deadly poison to man or beast if taken internally. It will also corrode iron or metal, so use in a glass or wooden vessel and be sure to wash these out very thoroughly when through using them.

2.-Lime-sulphur about twice spring strength, or bluestone, 1 lb. dissolved in about 14 gals. water, may be used to disinfect wounds or cankers, but is not satisfactory in case of Pear Blight.

STICKER

Resin ...... 2 lbs. Sal Soda (crystals) ...... 1 lb. Water ,..... 1 gal.

Boil together till a clear brown color which takes from 1 to 11 hours. Cook in an iron kettle in an open place. Add the above to 40 gallons Bordeaux, for use on smooth foliage like onions, cabbage or asparagus. If used with arsenate of lead, Paris Green, or arsenite of lime, add 1 or 2 lbs. of fresh lime to every 40 gallons of spray. Soap is also a sticker, but cannot be used with lime-sulphur, 3 lbs. to 40 gals. liquid is sufficient, Dissolve first by slicing and hoiling,

1.1

## SPRAY CALENDAR.

REVISED UP TO DATE FOR "THE FARMER'S ADVOCATE" BY L. CAESAR, O.A.C., GUELPH.

PLANTS AND PEST.	1st APPLICATION.	2nd APPLICATION.	8rd APPLICATION.	REMARKS.
APPLE.  Scab or black spot, can- ker, leaf spot, codling moth and other biting insects, scale insects, blister mite and aphids.	Shortly before the buds burst. Use A1 or B.  Note.—Two early applications are required for bad cases of San Jose Scale.	Just before the blossoms open. Use A2 or D, with 2 or 3 lbs. arsenate of lead to each 40 gals. of the liquid.	Immediately after the blossoms have nearly all, fallen, and before the calyces close. Use A3 or D, with 2 lbs. arsenate of lead to each 40 gals. This is the application for coding moth.	Cut out, disinfect and paint or cover with coal ter, cankered areas on trunks and large branches. In moist climates, or if the weather is wet or foggy, give a 4th application with A3 or D for Scab about ten days after Srd. If late summer is cold and damp, spray again with A3 or D for scab or sooty fungus. If aphids are present spray at once with Black Leaf 40 or kerosene emulsion or whale-oil soap. Black Leaf 40 may be used with lime sulphur. No benefit to spray aftet leaves are curled.
PEAR.  Scab or cracking, blight, sodling moth, other biting insects, scale insects, blister mite, psylla and slug.	Shortly before the buds burst. Use A1 or B.	Just before the blossoms open. Use A2 or D, with 2 or 3 lbs. arsenate of lead to 40 gals. of the liquid.	Just after blossoms have fallen. Use A3 or D, with 2 lbs. arsenate of lead to 40 gals.	Cut out and burn blight as soon as seen, cutting always one foot or more below diseased areas. Disinfect tools after each cut. For fungous diseases spray as outlined above for apple. For Psylla, spray thoroughly with A1 or B just after buds burst, or with Black Leaf 40 just after leaves open. For slugs spray with arsenate of lead or dust fresh air-slaked lime over the leaves.
PLUM AND CHERRY.  Black-knot, brown rot, leaf blight or shot-hole fungus, curculio, slug and aphids.	Just before the buds burst. Use A1 or B.	Just after fruit is set. Use A2 or D, with 3 lbs. arsenate of lead to 40 gals.	About two weeks later. Use A3 or D, with 3 Ibs. arsenate of lead to 40 gals.	Watch for black-knot, cut out at once well below diseased area and burn. For leaf blight give a 4th application with A3 or D as soon as fruit of cherry is picked. Destroy mummied plums in autumn. Look for aphids just before buds burst, and if present spray at once with Black Leaf 40 or kerosene emulsion or whale-oil soap. May use Black Leaf 40 with lime-sulphur. Treat slug as on pear.
PEACH.  Leaf-curl, scab or black spot, yellows, little peach, curculio, borer, San Jose scale, shothole borer.	Before the buds begin to swell. (All must be done before any sign of bursting of buds.)  Use A1 or B.  Many give only this application.	Just after fruit is set. Use 2 or 3 lbs arsenate of lead, and 1 or 2 lbs. freshly slaked lime to 40 galls. of water for curculio.	About one month after fruit is set. Use C, if troubled with black spot or brown rot.	If brown rot is likely to be troublesome use C again about one month before fruit ripens. Destroy nummied fruit in autumn. Remove at once and burn any tree attacked by yellows or little peach and also all suspected trees. Dig out borers at base of tree with knife in May and again in October. For shot-hole borer cut down and burn before April all dead or dying trees or branches, and leave no brush heaps near orchard.
GRAPES.  Black rot, powdery mildew, downy mildew, anthracnose, flea-beetle, thrip or leaf hopper.	When 3rd leaf is appearing. Use D.	Just before the blossoms open. Use D.	Just after fruit sets. Use D.	Spray again whenever wet weather threatens. It should always be done before, not after rain. At first sign of powdery mildew dust with sulphur or spray with C. For flea-beetles use poison whenever they appear. For leaf-hoppers or "thrips" use Black Leaf 40 or kerosene emulsion or whale oil soap in July to destroy nymphs. Clean cultivation is very important, and destruction of all old nummied grapes and prunings.
CURRANT AND GOOSEBERRY.  Mildow, leaf-spot, currant worm and aphids.	Shortly before buds burst. Use A1 or B.	Just before blossoms appear. Use A2, with 2 lbs. arsenate of lead to 40 gals.	Just after fruit is formed.  Use A2, with 2 lbs.  arsenate of lead to each 40 gals.	For worms when fruit is ripening, use hellebore. Look for aphids just before buds burst; if present spray with Black Leaf 40 or kerosene emulsion or whale oil soap. Of little use to spray for these after leaves curl.
RASPBERRY AND BLACKBERRY.  Anthracnose, red rust, crown gall.	Before growth begins. Use D.	When shoots are 6 or 8 inches high. Use D, and add poison if caterpillars are present.		If anthracnose is very severe, set out new plantation of healthy shoots. If disease begins, cut out old canes as soon as fruit, is picked, also badly-attacked new ones, and burn. For red rust remove and burn plants at once. No other remedy. For crown gall set out plants in fresh soil, rejecting any plant with a gall on root or crown.
STRAWBERRY.	burn over after picking. I	ughout the season. Second Do not take more than two	year spray before blossoming crops off. Plow down at o	on spray with D before blossoms open and keep plants of with D and again soon after picking; or mow and nee after second crop. For white grubs dig out as pasture for at least three years after breaking.
BEAN. Anthracnose and bacteriosis.	Get seeds from pods sh scarcely pays as a rule.	owing no signs of disease.	Do not work among the	plants if they are wet with rain or dew. Spraying
JABBAGE AND TURNIP. Flea-beetles, caterpillars, root maggots, aphids.	on cabbage and cauliflower, paper discs, putting on as	1 a sticker. Repeat in two then spray with fresh pyre	or three days. For cater thrum, 1 ounce to 2 gallons	by appear above ground with Paris green, or spray with pillars dust with Paris green until heads begin to form water. For root maggots use one-ply tarred felty 1st. For aphids use kerosene emulsion as soon as
POTATO.  Fip burn, early blight, late blight, scab, Colorado beetle, flea-beetle.	Keep foliage covered within at all damp after about scab, soak tubers before co	th D from time plants are 15th July, as late blight butting 2 hours in formalin	about 5 inches high. Take	special precautions to see this is well done if weather da poison to each application when necessary. For to 30 gallons of water. Spread out on grass to dry. perfectly healthy tubers.
TOMATO.  eaf blight, black rot, fina-beettle.	Spray plants in seed-bed flea-beetles.	with D. Keep foliage in	field covered with D until d	anger of staining fruit. Add a poison if necessary for
ASPARAGUS.	For rust, let no plants. old plants. For beetles, le weeks. May add sticker an	ot poultry run in the plant	e during cutting season. L	ate in fall when growth is about over, cut and burn n is over spray with arsenate of lead; repeat in two

## D —Bordeaux mixture, 4.4.40 formula. Formulae for Insecticides.

I.—POISONS (for biting insects only). 1.—ARSENATE OF LEAD—2 or 3 lbs. to 40 gallons liquid spray; 31 lbs. for potato

C —Self-boiled lime-sulphur.

B —The old home-boiled lime-sulphur, 20.15.40 formula.

2.—PARIS GREEN—(a) ½ to ½ lb. to 40 gals.; 1 lb. for potato beetles. If used with water alone, add 1 or 2 lbs. fresh lime. (b) 1 lb. mixed with 50 lbs. land plaster, air-slaked lime or some similar substance, for dusting on plants. (c) Poisoned bran, mix 1 th. Paris Green with

A2—Concentrated lime-sulphur, strength 1009 specific gravity = commercial 1 gal. to from 32 to 35 gals. water.

A3—Concentrated lime-sulphur, strength 1008 specific gravity = commercial 1 gal. to from 35 to 40 gals. water.

- 50 lbs. bran moistened with sweetened water. Scatter in evening on soil by plants for cut-
- 3.-ARSENATE OF LIME-Boil 1 1b. white arsenic and 1 lb. sal soda (crystals) with stirring for about 15 minutes in 1 gal. water

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en, cutting alareas. Dista diseases spray Psylla, spray ouds burst, or en. For slugs resh air-slaked

urled.

below diseased give a 4th fruit of cherry burst, and if Leaf 40 or May use Black g as on pear. e use C again

Destroy mumnce and burn tle peach and ers at base of October. For efore April all leave no brush

threatens. ter rain. th sulphur or pison whenever "thrips" use or whale-oil an cultivation all old mum-

ellebore. Look present spray sion or whale or these after

new plantation , cut out old badly-attacked nove and burn or crown gall ny plant with

d keep plants or mow and s dig out as aking.

w. Spraying

or spray with begin to form y tarred feltn as soon as

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cut and burn repeat in two

tened water. ants for cut-

1 lb. white stals) with 1 gal. water till all the arsenic is dissorved, then add 2 Ths. stone lime and let slake in boiling liquid. Add water to make up for what has evapor-One quart of this when well stirred is sufficient for 40 gals, spray liquid. Arsenite of lime can be made in large quantities and Label barrel "poison", and be carestored. ful to keep white arsenic itself labelled Keep barrel covered to prevent "poison." evaporation. Stir well before using.

N. B.—With Bordeaux, 1, 2 or 3, may be used; with commercial lime-sulphur only 1;

the others cause burning.
4.—WHITE HELLEBORE—One oz. to 2 gals. water, or dust undiluted over the plants. For root maggot dust close to plants, or pour round roots. II .- CONTACT POISONS (chiefly for sucking

insects). 1.KEROSENE EMULSION-Kerosene (Coal Oil) ,....., 2 gals.

Rain water ...... 1 gal. Soap ..... 1b. Dissolve the soap in water by slicing and boil-

ing; take from fire, and while hot pour in kerosene and churn vigorously For use dilute with 9 parts of minutes. water, so that the above 3 gals. of stock emulsion will make 30 gals. of spray mixture. 2.-WHALE OIL SOAP .- For prown or black

aphids, 1 lb. in 4 gals. For green aphids, thrip and leaf-hopper, 1 lb. in 6 gals. 3.—TOBACCO WATER.—Steep 1 lb. refuse tobacco in 1 or 2 gals. of water for 1 hour, make up for water that evaporates.

4.-Black leaf 40 sold by Tobacco Product Co., Louisville, Kentucky. Directions on the cans. 5.—PYRETHRUM (or insect powder). Pyrethrum Powder ...... 1 oz.

Water ..... 2 gals
Dry mixture. Mix thoroughly 1 part by weight of pyrethrum with 4 of cheap flour, and keep in air-tight vessel for 24 hours before dusting over plants.

Note: Pyrethrum is useless if left exposed to

6.LIME SULPHUR WASH.

(See under fungicides.)

## THE APIARY.

Co-operation, Past and Future.

Editor "The Farmer's Advocate" Some few years ago an effort was made to form a co-operative association for the purpose of purchasing apiarian supplies and disposing of This was seized upon with much its products. confidence by many of Ontario's progressive beekeepers, but for some reason was duly blasted with disappointment.

At the last annual meeting of the Ontario Bee keepers' Association the subject was opened again by some of those who believed that the beekeeper was not getting his own. Speaking t was supported by enerally, the new movement the younger beekeepers and discouraged by the It failed. Each year the more experienced. Provincial Association appoints a crop committee whose duties are to measure crop prospects and recommend wholesale and retail prices which the apiarist should receive for his honey. The work of this committee has been well done in the past. There is but little doubt that their suggestions have been helpful in making a more uniform and higher price for honey for the beekeeper. price has been more in sympathy with the price paid by the consumer. But we have said all that can be said of its accomplishments. It could recommend prices, but it was left to the individual to secure or fail to secure the recommended prices. Very frequently he failed to get the price, and his product was left on his hands. Much of last year's crop is still on his hands, and at the meany of the rebelevalor. and at the mercy of the wholesaler.

Let us briefly review and summarize the causes of these failures. The crop committee failed to get the price recommended, because the beekeepers get the price recommended, because the but re-co-operated in recommending the price, but re-fund the price in securing the price. The fused to co-operate in securing the price. The co-operative efforts of the beekeepers failed because of: First, the difficulty of financing the movement; second, the difficulty of retaining the loyalty of the members, and eliminating the selfishness of the individual; third, the want of sympathy between the apiarist and the consumer of his products; fourth, the difficulty of grading: fifth, the old beekeeper hesitated in putting his reputation, the result of years of honest and patient development, in the melting pot with that of the inexperienced beekeeper; sixth, the encouragement to beginners in the face of an al-

ready over produced market. At the present time there is no co-operative company or association among the beekeepers of Canada for disposing of their products. The time is ripe for some such accomplishment. There is no product which lends itself so readily as honey to this end. It is non-perishable, and can be

graded and packed ready for the consumer by

the beekeeper better than by any other person. The grain growers of the West are the persons destined to eat the surplus honey crop of Ontario and Eastern Canada. At their late rate of increase the market expands much faster than the supply increases. They are the most thoroughly organized agricultural body on the continent. The Ontario beekeeper sells his honey for from 8 cents to 11 cents per lb. The grain grower pays from 20 cents to 25 cents per lb. The beekeeper should have from 12 cents to 13 cents per lb., and the grain grower is so anxious to get it at this price that he is prepared to lend his vast organization to this end. When this common good is accomplished the consumption will be doubled and trebled independent of increased population. People will eat more honey at 15 cents than at 25 cents per lb. When this is done the beekeeper will worry about where he can get more honey instead of about where he can market the present crop.

A co-operative company is being formed by the interested beekeepers of Elgin County, Ont., to meet the demand of markets. It will be capitalized at \$2,000, divided into shares of \$10 each, one-half cash and one-half on call. The Association will charge ten per cent. commission for all sales. Each member may hold as few or as many shares as he wishes, and the profits will be divided at the end of each year among the

shareholders. It was estimated by the persons who formulated this company that there were two thousand colonies of bees in Elgin County. It will be noticed that if a member with one hundred colonies should take ten shares and cell his honey through the company his sale commissions would be returned on stock profit less the actual cost of running the company. If he subscribes for fewer than ten shares he would be paying an undue profit to the other shareholders. ment of stock and sale commission is meant to encourage each person to assume his share of financial responsibility.

You may hear of the success or failure of this venture one year hence. BLAKE MILLER. Elgin Co., Ont.

## Introducing Queens.

Editor "The Farmer's Advocate": The cage and candy method of introducing new queens, is probably the method that has heen used most, in the past, especially by begin-From my experience in using this plan, I find that a good deal depends on the time that the new queen is introduced; also, the kind of bees that are to receive her. During a honeyflow, or if bees are being fed, so that they will be gorged with honey when the new queen is liberated, there is not much danger of her being destroved. But if the bees have started queen-cells, they should be destroyed by the apiarist, as otherwise they may allow these to mature, with the laving queen in the hive, in which case they may cast a swarm with the new queen. If a virgin is allowed to hatch, chances are that the virgin will kill the laying queen; and if this should happen late in the season, a drone-laying queen be the result the following spring, unless the change of queens was noticed by the apjarist and these conditions remedied. The safest way to use the cage plan of introduction, is to take a couple of frames of sealed brood with adhering bees from the colony that we wish to requeen, and form a nucleus along side of it. In twentyfour hours or less, all the old bees will have returned to the parent hive, and the young bees will accept a laying queen.

I usually clip my queen, before introducing, and in this case, she can be allowed to run out among the bees. If the bees seem disposed to ill-treat her, a little smoke will scatter them, so she can be picked up and re-caged. However, it is very seldom that they show any hostility towards the queen, as they know that they are After the queen has hopeless when queenless. been laying for a couple of days, the old queen can be hunted up and killed, and the new queen can be introduced by transferring the two frames of brond-bees, and queen back to their own hive. This should be done in a way so as to disturb

the bees as little as possible. The smoke plan of introducing queens seems to be meeting with general favor, and while I do not consider it always certain in good results; it is so far ahead of the cage method, that I contemplate using it almost exclusively in my own yard another season. The way I work the smoke plan is this: at any time through the day I hunt up any queens I wish to replace and kill them: then in the evening I contract the entrance to half inch by four inch-get the smoker going so that the smoke will come from it in clouds, a small quantity of leaf tobacco mixed with planer shavings or greasy waste makes good material, three or four strong puffs of smoke are blown into the entrance and the queen is run in, and a couple more puffs are given and the entrance closed for about ten minutes. After which time, the entrance should be opened about one-half inch

in width, the bees will be so busy ventilating the hive and restoring the general order of things that they don't seem to notice the new queen. There is more danger of the queen being balled two or three days later. This fact can be ascertained by quietly raising the front of the hive early in the morning and glancing at the bottom of the combs and bottom board. If a small ball of bees is seen on the bottom board, it is a safe guess that the queen is inside the ball. An examination of this kind should be made without jarring the hive and without smoke.

Virgin queens are harder to introduce than a laying queen, and I know only one plan that has always proved safe in my experience, and that plan is this: place as many frames of brood in top stories over excluders. In nine days this brood will be all sealed over. This work should be planned ahead, so as not to interfere with our plans later. Now let us suppose that we have a batch of virgins, four or five days old which we consider too old to be introduced by any or-dinary method. We will take one frame of the dinary method. sealed brood with adhering bees from over the excluder and place it in a hive. For convenience a few hives should be specially made with one or two bee-tight division boards, forming two or three compartments. One inch auger holes should be made at each side for the side apartments and one at each end for the middle divisions. Having placed our brood and bees into as many divisions as we have queens to introduce, we will add a frame of unsealed honey or sugar-syrup. Fix the hive quilts in such a way that each apartment will be kept strictly separate. These nuclei should be formed sometime in the forencon and their entrances plugged with grass, then set aside in the shade till evening after which they should be placed on their permanent stand, the grass should then be removed from the entrances and the virgins allowed to run in from the cage, using a little smoke. This plan calls for an unusual amount of work, but it will more than repay the apiarist in so much as he will not have to figure on the loss of queens.

In trying any new experiments, I would advise beekeepers to practice on old queens or ones that are of little value. In this way, the apiarist may gain valuable information for future use at a small cost. In handling valuable queens for which a man has paid his hard-earned cash, it pays to take extra precautions, and I think the plans I have outlined in this article will meet all requirements where they are followed in detail.

Prescott Co., Ontario. JOHN A. McKINNON.

## FARM BULLETIN.

Our Real Rulers.

By Peter McArthur. At the present time the three political parties—but wait a minute. I haven't explained why I speak of three political parties. Most people think that there are only two but that is a mistake. There are three parties and at the present time they are all visible to the naked it is now constituted our government like "All Gaul" in the Latin reader of our school days "is divided into three parts." We have a Minority, a Majority and The Authority. And of these three the last, The Authority, is the only one worth watching by anyone who is interested in the course of political events. The Authority is made up of the railways, banks and big corporations of the country and its gall is not divided into any parts. As a matter of fact, it has more gall than a Government mule. The Authority, like the mule is now feeding openly at the public crib and laying back its ears and threatening to kick anyone who interferes with it. The trouble seems to be that several of the corporations that make up The Authority have not wintered well. The Steel Industry, and the Canadian Northern Railway seem to be "on the lift" again this spring and they need a big feed of "Long Green" to put them on their feet. The situation is interesting and illuminative, but it is not nearly so funny as I am making it appear. As a matter of fact, it is deadly serious for the credit of the country and the rights of the people are at stake. The time has come for the supporters of the Minority and the Majority—the Liberals and the Conservatives—to take a good look at The Authority and make up their minds whether they are going to endure its exactions any longer. At the present time, the most flourishing industry in Canada is that of making millionaires-and paupers. But it is time to call a halt. With one group of men having the power to raise money by pledging the credit of the country abroad and other groups having access to the accumulated savings of the people in the banks, a situation has been developed that is rapidly becoming intolerable. The credit and the wealth of the country are now in the hands of a few men, the rate of interest is going up, and we seem to be drifting towards national bankruptcy. If such a calamity should occur, it will not help us any to have our social system top-heavy with titled millionaires.

Now let us have a good look at The Authority" and get a thorough understanding of the part it plays in the government of Canada. By The Authority, is meant that powerful group of men and corporations that controls both political parties. Only a brief review of political events is needed to show that these men and corporations get what they want, no matter which party may happen to be in power. Those of you who followed the fight that the 'Farmer's Advocate' Those of you who made for government inspection of the banks, will remember that, when the recent Bank Act was passed, giving greater power to the banks. instead of curbing them in any way, the vote was practically unanimous. As nearly as I can remember, only two Liberals and nine Conservatives voted against the measure. The Authority was entirely in evidence at that time and when it cracked the whip both parties obeyed. The case of the railways is the same. Both parties have given them the lavish assistance which amounts to a public scandal. Both parties have given the railways promoted during their periods of office, enough aid to pay the whole cost of construction, and yet those railways do not belong to the people who paid for them but to groups of millionaires who regard them as their private property. Governments may change, but the railways can always get what they want. The steel industry is in the same position. Bonuses were granted by the Liberal government until public opinion was aroused to a point where they had to be discontinued. Now it is proposed that these bonuses shall be revived by the Conservative government. The Steel Industry can get what it wants, no matter what party is in power. It is the same with the long list of mergers and trusts that control practically every line of business in the country. They have been favored by both parties when they had the power to give them the legislation they required, and neither party has taken an effective stand against these conspiracies against the trade of the country. The Authority is well served by both the Minority and the Majority-and there is a reason. The Authority contributes the campaign funds and has more to say about what party shall be in power than the people of Canada. Business methods have been introduced into our political campaigns and corruption has been reduced to an exact science. There is no waste of either money or wickedness. It can be demonstrated that a change of government can be effected in Canada by a few thousand votes, properly placed-about twenty thousand, if I remember rightly-and even at a hundred dollars a vote, this would be a trifle, compared with the special privileges that might be secured from a grateful What adds point and pungency to this situation is the firm belief in well informed circles, that in the last two general elections, the campaign funds of the winning party in each case were collected and administered by the same man. And presumably they were collected from the same source on both occasions—from the money bags of The Authority.

Few people have any knowledge of the business and political corruption existing in Canada and the reason is simple. No matter which party you belong to, you must have noticed that the better class of papers are beginning to chafe against a political trick that has been introduced during the past few years -"The Saw-off." Political exposures are threatened, and then they are suddenly and mysteriously hushed-up. In spite of the fact that after every election, there are loud accusations of corruption very few protests come to trial The wise men of politics have found a better way of dealing with such scandals, than allowing them to be aired in court and enlightening the people as to the true state of affairs. After an election, the machine managers of both parties get together, and examine the evidence in a fair and open-minded way. Suppose the managers of one party show that the East Riding of Umpty-umph was bought. The mangers of the other party examine the evidence, and if it is conclusive, they acknowledge the truth of the accusation. Then they produce evidence to show that the North Riding of Tumpty-tum was bought by the other fellows. This evidence is considered by the parties of the first part, and if they find it conclusive they also acknowledge the corn. The situation now stands so that each party has a member who can be unseated. But what is the use of making a couple of scandals when neither party would gain in strength? The wise men decide on a "Saw-off". Instead of allowing the two cases to go to court, and having a member of each party unseated for corrupt practices all the evidence is suppressed. Instead of having two trials that would show people what is going on the people are kept in ignorance. In this way they deal with all the evid-

ence of corruption, and if one party happens to have a little more of it than the other, the other usually has knowledge of some other scandal that can be used to make the saw-off complete. Political parties now unearth scandals on each other not for the purpose of exposing them and purifying public life, but for the purpose of protecting themselves from the exposure of their own wrong doing. And this kind of "Saw-off" is not confined to electoral corruption. At the present moment there are ugly rumors to the effect that if the members of the Opposition do not oppose the railway policy of the Government the Staunton-Gutelius report on the National Transcontinental will be toned down so that it will be prac-We must not have political tically harmless. scandals or the methods of The Authority may become known to the befooled and plundered people. 'The "Saw-off" is the most infernal trick ever introduced into the country and the decent papers and leaders of both parties are beginning to protest against it. A way must be found of bringing electoral scandals and political crookedness before an impartial court.

Last week, we reviewed the railway situation and pointed out the necessity of having these giant corporations controlled by the government, and compelled to give adequate public service in return for their franchises and the aid they have received. This week your attention is called to the proposal to restore the bounties to the Steel Industry. To spoon-feed any industry from the treasury is simply to increase the burdens of the people, and to promote lax business methods in the management of the favored industry. Moreover, the industries depending on the iron and steel trade have become adjusted to the present condition of affairs and any change may work It is intimated that the proposed hardships. changes will give advantages to certain corporations that will enable them to drive rivals out of business. If that is the case, the proposed renewal of the bonuses clearly indicates another grab on the part of The Authority. More light on the subject is urgently needed. In any case it is time that the people-the true Authoritytook a hand in the government and insisted on a cleaning-up of both political parties.

## Clipping Horses in the Spring.

While the advisability of clipping horses in the fall will admit of argument, no sound argument can be used against the wisdom of clipping a large percentage of farm horses in the spring. Horses that have been worked or driven regularly well fed, well groomed and generally well cared for during the winter, and as a consequence have clean skins and reasonably short and glossy coats would not be benefited by being clipped, but those that have been partially or completely idle during the winter, whose skins have become dirty and coat long, from want of grooming and general attention, even though they may have been well fed and are in good condition, and will be required for work during seeding will perform their work with much greater comfort to themselves and satisfaction to their drivers if the are clipped. Some claim that it is cruel to deprive a horse of the coat that nature has provided for him, that it renders him susceptible to cold and chills by exposing the skin without protection to cold winds, hot sun and the general and often sudden changes of temperature. This argument has force so long as we leave the horse in a state of nature, but nature never intended that a horse should be asked to do hard and regular work without being in a fit state to perform it.

In order that a horse may be really fit he should be given a regular course of training, which in this case consists in at least five or six weeks of preparation, commencing with a little light work daily and gradually increasing the amount of work performed and the amount of grain consumed, with of course regular grooming and good general care. This course gradually gives tone and strength to the muscular and respiratory systems, (which have lost tone during the previous period of idleness) regular grooming cleans the skin and gives gloss to the coat and the regular pressure and friction of the harness gradually hardens and toughens the muscles and renders them practically immune from soreness when the pressure of hard work is unaveidable, always provided, of course, that the harness fits properly, is kept properly adjusted and clean.

But unfortunately there are many horses that have not had this course of training, hence are not "fit". Their skins and hair are dirty and long as noted, and their muscles lack tone hence will be very susceptible to soreness and rawness. When at work they perspire freely. The pressure of collar and other parts of the harness working upon the long wet hair, which tends to become uneven and lumpy and underneath which is dust and dandruff which have been accumulating for months, must of necessity tend to cause scalding and soreness followed by rawness. When the horse is put into the stable in the evening he is He cannot be well groomed until dry, it would be practically an all night's job for the teamster to rub his team dry, hence he gets little or no grooming. He is still wet in the morning and is again taken out to work in this condition, Under such conditions he is never comfortable, unless he be given a day or two of rest and be well groomed to take the matting out of his If he gets through seeding time without suffering from sore shoulders, sore neck, and sore back, it will be due to his immunity to such ailments rather than to good management.

A great deal of this discomfort to the horse can be prevented by clipping him. When clipped, of course his skin can be easily cleaned by brushing and rubbing. He will not perspire nearly so freely, and there being no hair to hold the moisture he will soon become dry. There is no hair to roll up under the collar or other part of the harness and provided the collar and harness fit properly, the tendency to soreness is reduced to a minimum. It will be found that he does his work with much more comfort to himself and satisfaction to his driver, and will keep in much better condition than he would on the same rations if unclipped. Of course the teamster must always remember that even in the spring, a clipped horse must, in some respects, be given greater attention than an unclipped one. It is wise to blanket him when in the stable and when standing idle in harness, unless the weather be quite warm. When in action he is safe, but when standing he will miss his coat, the cold and wind has practically his bare skin to act upon and this must be guarded against by providing artificial covering, else trouble will probably follow. clipping in the spring, it is probably wise to leave the legs unclipped. This especially applies to horses of the Clydesdale or Shire type. A horse whose body is clipped, but the legs not, has not an attractive appearance, but in the cases under discussion, comfort and service are of more value than appearance. In a few weeks' time the new coat will have grown and the horse will have regained his normal appearance, while if he be a hairy-legged fellow, and his legs are clipped, it will require several months for the feathering to grow full. In fact we rather pre-fer leaving the legs of all horses unclipped in spring clipping. Those who object to clipping at any season cannot wisely object to at least the clipping of the shoulders, in order to prevent scalding and consequent soreness.

## P. E. Island Notes.

Editor "The Farmer's Advocate": The seed fairs are now all over. five of them this season, all of which were pronounced successes. These shows have grown up and improved to a great extent during the last few years. There are ten exhibitions now where there was one a few years ago, and the keen competition has raised the quality of the exhibits to a very high standard. From the exhibits and the lectures given at these meetings a demand has come from our farmers for seeds of the best quality, and a large part of our grain crop is now disposed of for seed in this and the neighhoring provinces at a price of about 15 cents a The establishment of these seed fairs and the cost of running them is abundantly justified by the results. People who take an interest in good seed are also more interested in good cultivation, and will be more particular to get the weeds out of their fields, and thus raise not only the quality but the quantity per acre, and so get much larger returns for their work. These seed shows along with the "Field Competitions" which are now closely contested by a large number of our farmers, are the means of bringing up the average yield of our cereal crops

to a much higher standard. Stimulated by the higher prices there are more and better beef cattle being feed this year, and there seems to be a general move toward getting back to the beef breeds by those who have always followed a system of mixed farming. We hear a good deal of talk in some of our Farmers' Institutes about the dual-purpose cow. Though a considerable amount of milk is sent to the cheese factories by most of our farmers, it is a fact that there are only a few who have made a specialty of dairying. These few who have done so and have acquired good producing dairy herds will do well to stay by dairying, as they have acquired the skill necessary to make it pay. Others who follow a mixed system will perhaps do as well with a good dual-purpose herd the way things are going now, with the best cattle selling at \$8.00 per hundredweight. With a mixed system of farming, where beef and milk are both produced, it is necessary to keep a much larger herd than if engaged in dairying. The beef man has to raise many more calves to keep his herd up. To do this it is necessary to have the skim milk to feed the calves. fact is leading many thoughtful farmers to conclude that the butter factory is the one to patronize. A number of cheese factories have already patrons others v ing rapi land bu their ma able ter them w milk is without paying credit brought the pas very lo system a year They prover 60 being i business to the sentativ

P. E.

Editor

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already turned to making butter, and their patrons are so well satisfied that a good many others will soon follow suit. Markets are changing rapidly. Canada is using a lot of New Zealand butter. The United States have opened their markets to our butter on much more favorable terms than formerly. Farmers will do well to watch these changes and take advantage of them when they can. It seems to us that skim milk is too valuable a by-product to get along without, with pork, beef and eggs at such good paying prices. We must give our farmers the credit of knowing a good thing when it is brought to their attention. Our egg trade in the past has been so carried on as to give us a very low price for eggs, on account of the bad system under which they got to market. About a year ago the first egg circle was started here. They proved such a success that we have already over 60 circles in operation, and new ones are being formed every day. Our egg and poultry business is experiencing a great boom, and prices to the farmers during the winter have been in-creased 30 to 40 per cent. Our poultry representative, Mr. Benson and his staff, cannot keep near up with the demand for their services in starting egg circles. Co-operation in this matter has already reformed our egg trade, as it will do in any other trade if given a chance. P. E. I.

"When War Shall be no More"

Editor 'The Farmer's Advocate': In your issue of February 19th there was an article on "War against war" contributed by W. L. Martin, upon which, if permitted, I would like to comment. I rather fancy that our worthy triend wrote his letter somewhat hurriedly, and in a somewhat excited mood. He complains of the existing order of things without offering remedy, and asks questions which he should be answering. There can be no sane person, or people (unless it be Mr. Martin's "hell-inspired organization") who do not deplore this dreadnought era, and I think I am safe in saying that the feeling of dislike against excessive armaments is particularly strong in the British Empire, especially in Great Britain, more so at this time than in any other country in Europe; not that Great Britain can less afford such an enormous expenditure, in fact England is more able to stand it than any other country, but she sees the unproductiveness of such an immense amount of money and the waste of it, and we are filled with dismay when we think what the financial condition of Europe will be in twenty, nay ten years, if armaments increase as they have in the last decade; England's great competitor, Germany, is practically a bankrupt country to-day, and "if, Sir Edward Grey said in a speech in Manago, "we shut down our chester a few weeks naval program altogether and build nothing at all this year or even next year, do not think at this moment it would cause any alteration in the chip building of the other great powers of Suppose for a minute that Great Britain did this what would the consequence, direct or indirect, be? Maybe Mr. Martin, with his keen insight and counsel, would undertake to be responsible for the consequences of such a step, but mighty few others. I think that for Great Britain to make an enormous reduction in its ship building, when there was no sign of its having any impression on any of the other great powers, would be to take an insane gambling

Mr. Martin told us a lot of things we knew and a lot of things we didn't know; he tells us that the farmers' interests are all against the implements of war, to which of course we all say Amen. He asks us what quarrels we have that we should go out and blow each others heads off? and we say "None" (at present). He then proceeds to give us a mathematical lesson which he concludes by telling us that all the countries of Europe would be just as safe as they are now if their navies were divided by ten. To this also we reply in the affirmative, but we don't see that we are any nearer the solution after all our multiplication and division. If Mr. Martin could persuade all the great powers to do this, he would be honored as being the greatest man of the age. Some very wise men have tried and are trying this, but have hitherto been unsuccessful, and for Great Britain to divide by ten and other countries to add would seem rather strange. Mr. Martin goes on to tell us that Britain has had "no great war since Napolean's time, so why should Canadians True, but what is the reason? Britain's supremacy on water has been recognized by all, but how long would she have maintained it had she stood still since Nelson's time? "Why should Canadians worry?" Surely the question is unpressed to the stood still since Nelson's time? is unnecessary. I am sure that Mr. Martin will allow that such a vital question with the mother land concerns her children somewhat. Surely! I think the question for us to answer is this, it necessary that Great Britain should maintain her naval supremacy? We must answer "Yes." Should her sons in the colonies help her? "Yes," but we also say, "God hasten the time when war shall be no more."

DOUGLAS KNIGHT. Manitoba. DOUGLAS KNIGHT.

Bales Bros; Holstein Dispersion.

Favored with ideal weather, and a large gathering of visitors who came to purchase cattle. the big dispersion sale of sixty head of Holsteins owned by Bales Bros., of Lansing, Ontario, on Tuesday, March 24th. was a decided success. Bidding was spirited throughout, and auctioneer Prentice disposed of the entire sixty head, in a little over two and a-half hours, for an average of \$159.60 for females and \$70.50 for bulls. When it is remembered that many of these were calves but a few weeks old, and others were foundation cows well on in years, the average must be considered good. Thirty mature females averaged \$163, the highest price being \$350 and six sold for \$200 each or over. Fifteen heifers over one and under two years of age averaged \$162.66, the highest price being \$295. Five heifers from calves up to nearly one year, averaged \$130, the highest price being \$250. Eleven daughters of Sir Lyons Hengerveld Segis, all under two years of age, made the good average of \$181.80, the entire sixty head making the grand total of \$8.685.

The following is a list of those selling for \$100 or over together with their purchasers: Bessie Hengerveld Favorit; M. Monahan,

York Mills, ..... Kathleen Buttercup; R. S. Davie, Oak 155 210 130 350 Dellah Favorit Posch; Geo. Cooper, ...... 225 Thorold, ..... Knockaloe May 2nd; R. Lawless, ..... 135 Polly Favorit; W. Dix, Scarboro Jct. ...... 195 165 110 Marjorie De Kol's Model; R. Lawless, ..... 155 Clara Sylvia; G. A. Gilroy, Glen Buell, 150 King Billie Faforit; W. Brickley, Thornhill, 140 Princess Belinda Bluegrass; T. Eaton Co., 200 Dellah's Best; Mr. Morton, Lefroy. ............ Black Bird Segis; E. F. Osler, Bronte, ...... 295 140 Wax Myrtle Posch; W. Brickley, ...... 160 Johanna Segis Model; Mr. Carlyle, Newtonbrook, ..... Bonny Faforit Segis; Mr. Bell, Amber, ..... 100 Ophelia Princess; R. R. Stevens, Lemon-215 ville. .. Priscilla Abigail Jones; W. G. Hill, Queens-100 Bell Faforit Lansing; Mr. Carlyle, ...... Polly Faforit 2nd; Mr. Morton, ..... Springbrook Queen 3rd; M. Monahan, ... Dellah De Kol Calamity; Mr. Grimsby, Bedford Park, .... Maud Adams Faforit; Mr. McBride, King, Faforit Blossom; Mr. James, Newtonbrook, Myrtle Pride; Mr. Bloor, Willowdale, ....... Melva; G. A. Gilroy, .. Lansing Delight; R. Lawless, ..... Flora Blanch De Kol; R. Lawless, ..... Nellis Lyons Segis; Mr. Bales, Armitage, Lorina Wopke Pasma; R. Watson, Pine 130 Polly Segis; R. Lawless, Thorold, ...... Belle Faforit Posch; Mr. Thompson, Oak Ridges, ...... Mable Segis; K. R. Dunbarton, ...... Nellie Gray Princess; Mr. Thompson, ...... Dellah De Kol Faforit; R. Watson, ...... Norah Norine Pasma; R. Lawless, ..... Faforit Tensen Nettie; R. Watson, ..... Heifer not catalogued; Mr. Patterson, Agincourt, ......

## Must Register Letters Containing Money.

A new regulation has been added to the postal law which states that "The transmission of coin or bank notes in unregistered letters is expressly prohibited." Parties sending money by mail should remember that postal notes up to 20 cents, 25 cents, 30 cents and 40 cents may be had for 1 cent, at nearly every Post Office, and Postal Notes or Money Orders for larger amounts may be sent.

## Milk Advances.

A meeting of those interested in the production of milk and cream for the city of Toronto was held last week when it was decided to place the rates for milk during the coming summer at \$1.28 per eight-gallon can delivered to the dairy, or \$1.23 per eight-gallon can sold to the shipper. This is an increase of three cents per can over ruling prices last year.

## About the Amalgamation of Ontario Farmers' Organizations.

Editor "The Farmer's Advocate":

Criticism is a good thing, but your report of the organization meeting of the United Farmers of Ontario could not have been written by one who had a complete knowledge of the facts. However, inasmuch as your reporter received certain impressions, the publication of which is calculated to mislead your readers, I beg leave to make a statement of the facts of the case, so that your readers may be in a better position to draw their own conclusions.

The movement which culminated in last week's meeting took a somewhat definite shape last summer, in some correspondence between J. J. Morrison, Secretary of Dominion Grange, and some of those connected with the Grain Growers' Grain Co., of Winnipeg. This correspondence had to do with the prospects for a direct interchange of commodities between East and West. Following this came an invitation from the Grain Growers' Grain Co. for Mr. Morrison to attend their annual meeting on Nov. 11th and discuss the question further with the shareholders and officers of the Company. This was done, and, as a result, arrangements were made far the attendance of representatives from the farmers' organizations of Western Canada at the annual convention of the Dominion Grange and Farmers' Association, held in Toronto in December last. Representatives from Farmers' Clubs in Ontario were also invited to this meeting, and a general invitation was extended to all who might be in-Two representatives were present from terested. the United Farmers' of Alberta, three from the Saskatchewan Grain Growers' Association, and five from Manitoba, the latter representing the Grain Growers' Association, the Grain Growers' Guide, and the Grain Growers' Co. Quite a number of representatives of Ontario Farmers' Clubs were also present. The question of reorganizing in Ontario along lines which had proven so successful in the West received no little attention at the convention, and, as a result of the deliberations, it was decided that it would be in the interest of Ontario farmers to organize along the two lines referred to very accurately in your report. A resolution was passed to this effect, and a committee was appointed with instructions to take whatever steps they considered necessary to carry out the substance of the resolution. Possibly the Grange was largely represented on this committee. Under the circumstances it could hardly have been otherwise, since the Grange has been until lately the only independent farmers' organization in Ontario, and has been affiliated with the three farmers' associations of the Prairie Provinces since 1909: Be that as it may, the committee, acting under instructions, proceeded to work out the details. A draft constitution was carefully prepared, based upon the constitutions of the farmers' associations of the Western Provinces; and the secretary of the committee, Mr. Morrison, undertook to explore the field and ascertain the attitude of the various local farm organizations towards consolidation along the proposed lines. His visits to the various local bodies met with unexpected success; everywhere the farmers seemed ready for the next step in advance towards amalgamation or consolidation of interests. The committee, therefore, felt justified in planning for a large public meeting of delegates from local bodies, at which their recommendations could be submitted for consideration, and if the meeting deemed wise organization along the proposed lines could be effected. The question as to whether the commercial end of the movement, the company—which, by the way, is not a joint stock company, but a co-operative company-should be incorporated to, or subsequent to the organization meeting, received rather lengthy consideration by the committee, and it was finally decided that it would be advisable to incorporate with provisional directors prior to the organization meeting, so that the inevitable delays attending legal incorporation should not subsequently interfere with the operations of the company. I was, therefore, instructed by the committee to incorporate with as little expense as possible, which was done at a Farmers' Club meeting near my own home, several of my neighbors joining with me in applying for a charter. The draft by-laws for the company were prepared under the auspices of the Co-operative Union of Canada.

Finally the committee undertook to make arrangements for the meeting in Toronto on the 19th and 20th of March, at which their recommendations could be submitted and decided upon, and at which a permanent board of directors for the company could be selected. The committee has nothing to conceal, and, so far as I can see, nothing to be ashamed of. They were operating under instructions, and their duties ceased with

the close of the last meeting in Toronto.

Now, in the light of these facts, permit me to call your readers' attention to certain of your criticisms. In the first place I may remark that the by-laws were not submitted by the pro-

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visional directors to the Legislature, as your report stated. On the morning of March 19th I went over them with Mr. Johns, Assistant to the Provincial Secretary, so that they might receive the endorsation of the Department before they were submitted to the meeting. I did this at Mr. Lick's suggestion.

Your report states further that representatives of subordinate Granges dominated the gathering, and implies that this was not as it should be. Apart from the recommendations of the committee, which had been prepared for some time, I believe that the facts do not justify your statement. In fact I believe the contrary to be the case. I trust, however, that those present, no matter what local bodies they represented, were there as farmers, with the sole purpose of advancing the cause and status of agriculture. Let us sink our differences and suppress our preductions.

Your report, states further that "when it came to the essential features of the organization it did seem as though a great deal was foreordained." Nothing was foreordained. The committee, acting under instructions, had prepared constitution and by-laws, and had obtained a charter for the company. They were prepared, to make certain specific recommendations which the meeting might approve or disapprove. Nothing was foreordained, but there was much ready for submission. Constitutions cannot be drafted in a public meeting, and, if the committee had done nothing in the way of preparation, the meeting would have ended as the previous one had ended, namely, with the appointment of a special committee to work out the details. We should now he exactly where we ware last December.

be exactly where we were last December.

Further your report states that "it also seemed unfortunate that more of the most successful salesmen and managers of co-operative organizations could not have been present to give others the benefit of their experience, etc." Who and where are these men? The committee's information was necessarily limited, but they did their best to secure the best available in the province. If their selection was unfair or unrepresentative of the most successful co-operative enterprises in the province, it is their misfortune, not their fault, and they will only be too pleased to be enlightened.

Your report also objects to the fact that F. C. Hart, at the head of the new Co-operative and Markets Branch of the Ontario Department of Agriculture, was not given a place upon the program. I have every respect for Mr. Hart, and fully expected that he would be present at the meeting. In fact I tried to get him by phone and urge him to attend, but he was out The meeting, however, was purely a farmers' gathering, and it might have seemed a little odd to select one particular government official and ask him to speak at such a meet-The co-operative movement is essentially a self-help movement, and must always remain free from official control. No one knows this better than Mr. Hart, who is well posted as to the extensive development of the movement in Europe, and knows, doubtless, the conditions which have

made it so successful.

The following sentence from your report is

worth repeating: "The constitution of the new organization was prepared by a special committee and on paper looked fairly good, but all local organizations affiliating with The United Farmers' of Ontario must accept and abide by the constitution of the central body." As a matter of fact it is not the constitution of the central body any more than it is the constitution of branch associations. Moreover, there is no possibility of consolidation without the adoption of one constitution, which leaves branches with as much local autonomy as is possible. Everyone present knew that the constitution prepared by the committee was based on the constitutions of the Western farmers' organizations and was not based on that of the Grange. Admittedly it allowed the greatest latitude to local bodies. The only question that aroused any serious discussion was that of the annual dues paid by members to maintain the head office, pay delegates' fares to annual conventions, and look after all such necessary expenses. Some compromise had to be effected. The decision arrived at favored the fee which is customary in the Grange, and also in the Western organizations. It differs by 25 cents a year from that prevailing in most Farmers' Clubs, and, if this is too much to pay for the advantages of consolidation, local bodies will not affiliate. Branches could not be admitted at different rates, which might have occurred to your reporter on second thought .- The question of a capitation tax is admittedly a difficult one; and there will have to be mutual concessions, as indeed there must be in all co-operative effort.

criticism made Regarding the concerning alleged methods of electing directors and officers, I will say deliberately and advisedly that it is without foundation in fact. The only thing the committee did was to prepare a list of possible directors for the company, and ascertain if they were willing to act. They had nothing to do with the election of officers for the Association. I did not know that my name would be placed in nomination for the presidency. I did not want the position, and I was alone responsible for nominating Mr. Drury, who was away in Ottawa at the time, and who had never been approached in regard to the matter. Moreover, my election as president of the company did not take place in the public meeting, but in a subsequent meeting of directors. The insinuation that the committee had arranged that Mr. Drury was to be president of the U. F. O. while I was to be president of the U. F. Company is absolutely baseless. The committee never considered the matter at all, and anything done was done by private initiative, largely upon the spur of the moment. Admittedly the time was short, and business had to be rushed through. Mistakes may have been made. If so they can be remedied in the future. stitution by-laws and officers can be changed. From the standpoint of my own business I have no desire for any further responsibility. Already I have made sacrifices of both time and money to assist in the movement that threatens my own financial security. Others have done the same, with no thought of reward apart from the good

which their efforts may bring forth.

Further on your report states that "a strong

association of 400 or 500 members may think twice before they throw down their own rules, send 50 cents per member to a central of which they know little, and give up an efficient local salesman of great ability for an unknown quantity." It is strange indeed that any such Under the conideas should obtain credence. stitution as adopted every branch can follow its own rules, and there has never been the faintest suggestion that local bodies should dismiss local salesmen. The whole idea is absurd. The only stipulation made is that 50 cents per member shall be remitted to the central office to defray the expenses of that body and of the annual conventions. Doubtless this will deter some from joining, but it cannot be helped.

May I say in conclusion that, although miatakes have doubtless been made, and will be made again, there has been no underhand juggling in connection with the movement. In publishing such a report I consider that "The Farmer's Advocate" has sacrificed a reputation for fairness and openmindedness that have put it in the very front rank as an agricultural journal; and I regret very much the misunderstanding to which such a report will inevitably lead. As I was chairman of the committee that had charge of the meeting I am fully acquainted with the facts, and shall be only too pleased to give more detailed information upon any point concerning which inquiries may be made.

Brant Co., Ont. W. C. GOOD.

## An Agricultural Conference at Ottawa.

On Tuesday, March 24th, representatives from the Agricultural and Educational Departments of all the provinces were called in conference at Ottawa by the Hon. Martin Burrell, Dominion Minister of Agriculture, to discuss the best means of utilizing the Dominion grant to agriculture in the provinces. Agricultural college representatives were also present. It is understood that the provinces have a fairly free hand in the expenditure of this grant, but a great deal of good was thought to be possible through a discussion in conference of the men directly connected with the work in the provinces. The District Representative idea now being worked out successfully in Ontario is likely to spread rapidly in some form to other provinces, and as far as Ontario is concerned those in charge seem prepared to spend still more on this branch of the work and Hon. Martin further increase its effectiveness. Burrell entertained the Ministers, Deputies and other representatives present at dinner at the Parliament Buildings at the conclusion of the business session.

The new commission appointed to look into the feasibility of the Georgian Bay Canal, and consisting of Sanford Evans, (chairman); Col. Meighen, and Mr. Gohier, with Mr. Hepburn as secretary, have commenced the work leading up to their report.

## Markets

Toronto.

Receipts at the Union Stock-yards, West Toronto, on Monday, March 80, were liberal, numbering 119 cars, 2,450 cattle, 460 hogs, 26 sheep, and 29 horses. Trade in cattle was slow. Choice steers, \$8 to \$8.40; good, \$7.50 to \$7.75; common, \$6.50 to \$6.75; cows, \$3 to \$7; bulls, \$5.75 to \$7.25; milkers and springers, \$60 to \$95; veal calves, \$7 to \$11.50; sheep, \$6 to \$7.50; rams, \$4 to \$6.50; hogs, \$9.25 fed and watered, and \$9.50 weighed off cars.

REVIEW OF LAST WEEK'S MARKETS

The total receipts of live stock at the
City and Union Stock-yards for the past
week were:

week werm;			
	City.	Union.	Total.
Cars	5	293	298
Cattle	58	3,724	3,782
Hogs	134	7,693	7,827
Sheep		1,171	1,171
Calves		462	462
Horses		000	0.70

The total receipts of live stock at the two yards for the same two weeks of 1913 were:

	City.	Union.	Total.
Cars	14	215	229
Cattle	397	2,481	2.878
Hogs	289	4,539	4,828
Sheep	48	158	206
Calves	49	580	629
Horses		103	103

The combined receipts of live stock at the two markets for the past week show an increase of 69 cars, 904 cattle, 2,999 hogs, 965 sheep and lambs, and 170 horses; but a decrease of 167 calves.

Receipts of live stock for the past week were moderate, but quite equal to the demand. Trade was not as brisk as for several weeks, and it looks as though prices for Easter cattle will not be as high as was expected or anticipated.

Butchers'.—Choice steers sold at \$8 to \$8.35; good, \$7.40 to \$7.60; medium, \$7 to \$7.25; common, \$6.50 to \$6.75; choice cows, \$6.75 to \$7; good cows, \$6.50 to \$6.75; medium cows, \$5.50 to \$6; common cows, \$5 to \$5.50; canners and cutters, \$3.75 to \$4.50; choice bulls, \$7 to \$7.50; good bulls, \$6.50 to \$7; medium, \$6 to \$6.50.

Stockers and Feeders.—Stockers and feeders were in moderate supply, but quite equal to the demand. Steers, 800 to 900 lbs., sold at \$6.75 to \$7; steers, 700 to 800 lbs., at \$6.25 to \$6.50; stockers, \$4.50 to \$5.75.

Milkers and Springers.—Fred Rowntree bought two choice Holstein springers for which he paid \$125 each. Mr. Rowntree buys a large number of the best cows of all classes and breeds, and does an interprising trade from one year's end to the other. His average price this week was about \$75 to \$90 each.

Veal Calves.—There was little or no change in veal calves, and prices were very firm. Choice new-milk-fed calves were scarce, and sold from \$10.50 to \$11.50 per cwt.; common and medium calves sold at \$8 to \$9.50.

were scarce, and as firm as ever. Sheep, ewes sold at \$7 to \$7.25; rams, \$6 to \$6.50; cutters, \$4.50 to \$5.50; heavy lambs, \$8 to \$8.75; light lambs, \$9.25 to \$9.75.

Hogs.—Selects, fed and watered, sold from \$9.25 to \$9.50; and \$9.15 to \$9.20 f. o. b. cars, and \$9.75 weighed off cars.

UNION STOCK - YARDS HORSE SALE. On Wednesday last, at the Union Horse Exchange, there was the best horse sale conducted this season. The stables were taxed to their capacity, trade being brisk, and a good clearance was effected. Buyers were present from many parts of the country, and shipments were made to Moosejaw, Sask.; Montreal, Ottawa, New Glasgow, N. S.; Buffalo, Quebec City, as well as many smaller lots to different points in Ontario. The local demand was good for drafters and farm horses. Prices were quoted as follows: Drafters, \$175 to \$250; general-purpose horses, \$150 to \$225; expressers, \$175 \$225; drivers, \$100 to \$175; serviceably sound, \$45 to \$85.

## BREADSTUFFS.

Wheat.—Ontario, No. 2 red, white or mixed, 97c. to 98c., outside; \$1, track, Toronto. Manitoba, No. 1 northern, 99½c., track, bay points; No. 2 northern, 98c.; more at Goderich.

Oats.—Ontario, new, No. 2 white, 37c. to 38c., outside; 40c. to 40½c., track, Toronto. Manitoba, No. 2, 42c., lake ports.

Rye.—No. 2, 62c. to 63c., outside. Corn.—American, No. 3 yellow, 74c., all rail, track, Toronto.

Sheep and Lambs.—Sheep and lambs feed, 43c. to 45c., outside.

Peas.-No. 2, 98c. to \$1.

Flour.—Ontario, ninety-per-cent. winter-wheat patents, new, \$3.80 to \$3.85, sear-board. Manitoba flour—Prices at Toronto are: First patents, \$5.60; in cotton, 10c. more; second patents, \$5.10, strong bakers', \$4.60; in jute, 10c. more

HAY AND MILLFEED.

Hay.—Baled, car lots, track, Toronto. \$15; No. 2 hay, \$14.

Straw.—Baled, car lots, \$8.50 to \$9. Millfeed.—Manitoba bran, \$25, in bagatrack, Toronto; shorts, \$26; Ontarie bran, in bags, \$24; middlings, \$18.25.

COUNTRY PRODUCE.

Butter.—Creamery pound rolls, 82c. to 34c.; separator dairy, 27c. to 28c.; store lots, 24c. to 25c.

Eggs.—New-laid, 29c. to 30c. Cheese.—Old, large, 15c. to 151c.; new.

14½c. to 15c. Honey.—Extracted, 9c.; combs, \$2.50 to

\$3 per dozen sections.

Beans.—Imported, hand - picked, \$2.28
per bushel; Canadians, hand - picked.

\$2.25; prime, \$2.

Potatoes.—Car lots of Ontarios, per bag, track, Toronto, 80c. to 90c.; New Brunswick Delawares, 90c. to \$1, track.

Poultry.—Receipts light, and prices very firm. Turkeys, dressed, 22c. to 25c. per lb.; geese, 18c. to 20c. per lb.; ducks. 20c. to 22c.; chickens, 20c. to 24c. per lb.; hens, 16c. to 18c. per lb., dressed.

## FRUITS AND VEGETABLES.

Apples, per basket, 30c. to 60c.; apples in barrels, No. 1 Spies, \$4.50 to \$5. No. 2 Spies, \$4 to \$4.50; No. 1 Greenings, \$3.50 to \$4 per barrel; No. 2

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60c.; apples 4.50 to \$5. No. 1 Greenarrel; No. 2

ABLES.

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.

Greenings, \$2.50 to \$3; Canadian onions, \$1.85 to \$2; turnips, 50c. per bag; Canadian beets, 80c. to 90c.

## Buffalo. Cattle.—Trade good all ol last week, prices being mostly 10 to 15 cents

above the preceding week, as a result of

which several loads of Canadian cattle were offered, and made money for the shippers. Some shipping Canadian steers that were bought some months ago and taken to feed lots and finished up, sold up among the toppy cattle, be-Top steers ing quite fat and desirable. the past week were out of Ohio, bring-\$9.25, with other sales of good weight steers up to \$9.05 to \$9.10. Most shipping steers ranged from \$8.40 to \$8.85, and the demand for them was strong; Swift, Armour, Stern, Sulzberger and quite a few of Boston and near-by killers of better kinds of steers being in the competition. Practically everything in the shipping steer line was cleaned up before noon. Market after Monday before noon. ruled steady, local killers needing quite a few cattle. Notwithstanding higher prices prevailed the past week, complaint is still heard from the killers on the unfavorable beef trade. Western beef is coming in in large quantities, and Argentine stuff is still being placed in competition with native beef. Very few of the handy butchering cattle that are real good in finish are coming. A few loads of light Canadian steers brought \$7.90 to \$8.10, considered a good price. Sellers think that with the unfavorable beef trade of late at Ontario markets. that the right kinds of tidy steers and beifers would make money on the Buffalo Canadian heifers sold at \$7.75, and fancy, gobby fat cows up to \$8.05, the highest price paid for cows for some time past. Time is arriving for a good trade on stock and feeding cattle. Order buyers have had requests for good kinds of both stockers and feeders for some weeks past, and no doubt some Canadians in this line would be bought readily, as they have proved quite satisfactory in the past, but they must be of good quality and preferably dehorned. Bulls remain high, and Canadian fresh cows and springers are bringing high prices here, two consignments of late selling to excellent advantage. Runs for the past week totaled 8,500 head, as against 4,350 head for the week before, and 3,400 head for the corresponding week a year ago. Quotations:

Heavy steers, good to choice, \$8.40 to \$9.25; heavy steers, medium to good, \$8.10 to \$8.50; butcher steers, good to choice, \$7.75 to \$8.35; butcher steers, medium to good, \$7.25 to \$7.75; butcher steers, common, \$6.75 to \$7.00; best cows, \$6.25 to \$6.75; fair to good tows, \$5,75 to \$6.00; cutter cows, \$4.50 to \$5.00; canner cows, \$3.50 to \$4.25 good to choice heifers, \$7.40 to \$7.60 fair to good heifers, \$6.50 to \$7.00 light and common, \$5.00 to \$5.50; best stockers and feeders, \$6.50 to \$7.25 tair to good. \$6.00 to \$6.50; common, \$5.25 to \$5.75; stock bulls, \$5.25 to \$5.75; bologna bulls, \$6.50 to \$6.90; fat bulls, \$6,90 to \$7.40; best milkers and springers, \$50. to \$80; common, \$30 to \$50.

Hogs.--Market was good first four days of last week, and Friday a break was duffered. Week started with a \$9.30

market for all grades, and Wednesday packers paid up to \$9.40, while Friday, all grades dropped down to \$9 to \$9.05. Thursday's receipts included a deck of Canadian hogs, and these sold at \$9.20 Roughs, \$8.25 to \$8.50; stags, \$7 to \$7.50. Past week's run 27,680, the previous week 24,600, same week a year ago, 18,080.

Sheep and Lambs.-Lamb trade opened higher the past week and Wednesday values went off badly, with a reaction for the following two days. On the middle day of the week buyers got top lambs down to \$8.10 to \$8.15, and Thursday's and Friday's advance brought the tops up to \$8.50, with culls \$8.00 down. Sheep were considerably stronger for the latter part of the week, Monday's top for wethers being \$6.40, while on Friday a load made \$6.85. Ewes, \$5.75 to \$6.25, and top yearling wethers, \$7.25 to \$7.50; few \$7.65. Monday, with wool lambs selling at \$8.25 to \$8.35, clipped lambs brought up to \$7.00. No shorn stock offered after the opening day. Receipts: Past week, 24,400; previous week, 25,200;

year ago, 20,600. Calves.—First day of last week was the high time for calves, tops bringing up to \$11.00, balance of the week tops selling mostly at \$10.50, with some reaching \$10.75. Cull grades \$8.50 down, and fed calves \$4.50 to \$6.00. Runs: Past week, 2,125 head; previous week, 1,850; year ago, 1,450 head.

Butter.-Creamery, Prints, 29c.; creamery, do., firsts, 27c.; creamery, do., choice, 25 to 26c.; dairy, choice to fancy, 26 to 27c.; dairy, fair to good, 24 to 25c.

Cheese, Cheese, fancy, new, 18 to 18 c.; good to choice, 17 to 18c. Eggs.-White, fancy, 22c.; fancy, mixed, 201 to 21c.

Dressed Poultry.-Demand good, firm. Chickens, fancy, 19 to 20c.; chickens, fair to good, 17 to 18c.; fowls, fancy,

## Montreal.

The market for live stock of all kinds continued firm, considering that it was still Lent. Offerings of all kinds of stock on the local market have been light recently. This is more especially the case with cattle, the quality of the offerings of which is poor. No doubt the cattle have been held back in order to get them into condition for the Easter market, which will begin in about another week. Prices continued firm. Sales of best steers were made at about 84c. per lb., while fine were quoted at 8c.; good stock sold from 7ic. to 8c., and medium from 6c. to 7c., while common ranged down to 5c. This latter price was mainly for cows and bulls. Sheep and lambs were fairly steady, and demand was not at all active. continued exceptionally high. Sheep sold at 6c. to 6ic. per lb., and lambs at 8c. to 9c. per lb. New calves were beginning to come along, but were still scarce. Prices ranged from \$8 to \$6 for common, and up to \$12 and \$15 each for the best. Hogs showed an easier tone, apparently as a result of larger offerings of several cars from Manitoba. These sold at 9ic. to 9ic. per lb., while Ontario stock ranged from 9%c. to about 9 c. Some common stock came in from Manitoba, and sold as low, it is said. as 7c., weighed off cars. horses have

Herses.—Quite a few changed hands lately. Horses weighing from 1,500 to 1,700 lbs., sold at \$275 to \$300 each; light draft, weighing from 1,400 to 1,500 lbs., \$225 to \$275 each; broken-down animals, \$75 to \$125, and choicest saddle and carriage animals, \$350 to \$400 each.

Poultry.-The market was about steady, and demand was moderately active. Turkeys were 22c. to 24c. per lb.; ducks, 16c. to 18c.; chickens, 19c. to 21c.; fowl, 16c. to 18c., and geese, 14c. to 16c.

Dressed Hogs.-The market for dressed hogs was steady, prices being 181c. to 13%c. per lb. for fresh-killed, abattoirdressed stock.

Potatoes.-The market was on the easy side. Green Mountains were about 82 c. per bag, ex track, in car lots, while Quebec varieties were 75c. In a jobbing way, prices were 20c. to 25c. higher, ex store. Bags weigh 90 lbs.

Honey and Syrup.-New syrup should be offering in another week, and prices should be about 71c. to 81c. per lb. in wood, and 80c. to 90c. in tins. White-

clover comb was 15c. to 16c. per lb.; extracted, 10½c. to 11½c.; dark comb. 13c. to 14c., and strained, 7½c. to 8½c. per lb.

Eggs.—Prices of eggs fell rapidly, owing to the increased offerings. The stock was practically all Canadian, and the price was 25c. to 27c. per dozen.

Butter.—The market for butter is likely to hold firm for a week or two to come. Choice creamery was 29c, to 30c. per lb., wholesale; fine, 28c. to 29c., while second grades were 261c. to 271c. Dairy butter was firm, at 28c. to 24c. per lb. for Ontarios, and 22c. to 28c. for Manitobas.

Grain.-Oats were steady in price. No. 2 Western Canada oats were quoted at 44c. to 44ic. per bushel, ex store, in car lots; No. 8 were 48tc. to 43tc., and No. 2 feed at 42 c. to 43c. No. 8 American yellow corn has advanced to 781c to

Flour.-The market held firm. toba first-patent flour was quoted at \$5.60 per barrel, in bags, seconds being \$5.10, and strong bakers' \$4.90. Ontario winter-wheat flour was firmer, at \$5.25 to \$5.50 for patents, and \$4.70 to \$4.90 per barrel for straight rollers, in

Millfeed.—The market for millfeed was steady. Bran sold at \$28 per ton, and shorts at \$25, in bags, while middlings were \$28, including bags. Mouille was \$30 to \$32 per ton for pure, and \$28 to \$29 for mixed.

Hay.-Prices of hay were a shade on the easy side. No. 1 pressed hay, car lots, Montreal, track, was \$15 to \$15.50 per ton, while No. 2 extra good was \$14 to \$14.50, and No. 2, \$18 to \$18.50.

Seeds .- Merchants bought grass and clover seed pretty freely, but farmers still held back. Prices were: Timothy, \$10 to \$11.50 per 100 lbs., Montreal; red clover, \$22 to \$24 per 100 lbs., and alsike, \$20 to \$24 per 100 lbs.

Hides.—The market for hides was unchanged. Quality improved slightly. Beef hides were 18c., 14c. and 15c. for Nos. 3, 2 and 1, respectively, Calf skins were 17c. and 19c. for Nos. 2 and 1, and lamb skins were \$1.20 to \$1.25 each, with horse hides ranging from \$1.75 for No. 2, to \$2.50 each for No. 1. Tallow sold at 1 te. to 3c. for rough, and 5c. to 6ic. for rendered.

## Chicago.

Cattle.—Beeves, \$7 to \$9.80; Texas steers, \$7.25 to \$8.80; stockers and feeders, \$5.60 to \$8.10; cows and helfers, \$3.70 to \$8.50; calves, \$6 to \$9.

Hogs.-Light, \$8.45 to \$8.70; mixed, \$8.40 to \$8.70; heavy, \$8.25 to \$8.70; rough, \$8.25 to \$8.80; pigs, \$7.25 to \$8.65; bulk of sales, \$8.85 to \$8.65.

Sheep and Lambs.—Sheep, native, \$5.25 to \$6.75; yearlings, \$6.25 to \$7.50; lambs, native, \$7.25 to \$8.25.

## Gossip.

Robt. McEwen, of Byron, Ont., states that he has had a very keen demand for Angus cattle this winter, both in bulls and females. Mr. McEwen has never made a practice of fitting and showing his breeding herd up to the present time, but every cow in it has been selected from one or other of the best herds on the American side, and the fact that every bull calf has been ordered the year before being weaned, is a proof of the fact that the stock - raisers here want breeding as well as conformation and quality. A selection from the herd has been made recently by Geo. A. Walker, Metcalf, Ont., of six choice females; two cows in calf to Blackbird Beverly, Orleans Queen 5th, and Marguerite D. 2nd, two heifers about a year old and two calves, both Queen Mothers. To complete his herd in September, Mr. Walker gets a bull calf of the Westerton Rose family, and a right start in breeding is assured by the use of this typical, wellbred young bull on the cows he has selected. W. H. Littlefield, of Brantford, has purchased Blackbird Beverly, the Chicago-winning bull that has headed the Alloway Lodge herd for two years, and this bull's past record as a breeder relieves Mr. Littlefield of any uncertainty as to his value as a sire. Glen Eyrie Rose 3rd, and a strong bull calf, were the Shorthorns at 2 p. m.

sold to Mr. R. E. Golden, McGregor, This young cow has already pro-Ont. duced two choice calves, and is again safely in calf to the same bull, and should sustain her reputation in the

Wm. Meharey, Russell, Ont., is offering three choice imported Clydesdale statlions this spring.

STOCK SALE DATES CLAIMED.

April 3rd .- J. Lloyd Jones, Burford, Ont.; Shropshire sheep, Shorthorns, and dairy cattle.

April 8th.—Camby Charlton & Sons, Springfield, Ont.; Shorthorns. April 9th.—P. J. Salley, Lachine Rapids, Que.; Holsteins.

or strain a fermion of the officers of At a sale of Percherons at Grand Island, Nebraska, March 19 and 20, the highest price reached was \$1,750, for the four-year-old gray stallion, Kaneton, whose weight was reported as 2,200 lbs. The black three-year-old stallion, Colossus, made \$1,500, and the gray fouryear-old, Kabaleur, brought \$1,000. The highest price for a mare was \$675.

R. Honey & Sons, Brickley, Ont., write that their young buil, born May 8th, which they are offering for sale, is sired by Sir Korndyke Hengerveld, a brother of the Canadian champion four-year-old heifer, which will give over 20,000 lbs. milk in the year. They are booking orders now for young bulls from R. O. P. cows, and sired by Our Villa Sir Abbe-

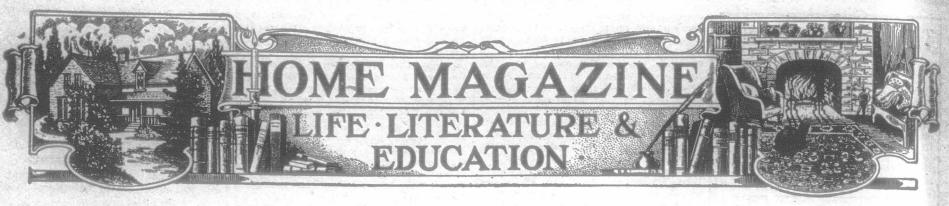
## THE LLOYD-JONES SALE,

In the sale to be conducted by J. Lloyd-Jones, Burford, Ont., on April 3rd, 1914, are some choice Shorthorn helfers in nice breeding condition, and out of typy and good-milking cows. The Shropshire ewes and ewe lambs are a good lot, and include the second - prize ewe lamb at Toronto last November. The dairy cattle are the producing kind, and in right condition for the buyer. There are some brood sows offered which will be a snap for the buyer at this seas son. All will be sold, without reserve. Look up the advertisement in another column and get full particulars.

S. J. Pearson, of Meadowvale, Peel Co., Ont., well known by readers of "The Farmer's Advocate," as for many years owner of the high-class Valley Home herd of Shorthorn cattle, died suddenly at his home, March 25th, in his 76th year, after two years of failing health, which caused him to retire from farming to the adjoining village. He was a highly respected man, an ardent prohibitionist, raised in the Quaker faith, and was for forty years a faithful member of the Methodist Church. He is survived by one son and four daughters.

SHORTHORNS AND HOLSTEINS BY AUCTION.

What will be the crowning event of the season in the matter of dispersion sales of pure-bred cattle, will take place at the Meadowbrook Farm, 24 miles west of the town of Whitby, on Tuesday, April 14th, 1914. On that date there will be a complete dispersion of these noted herds of 31 Shorthorns and 22 Holsteins. At this sale an opportunity will be presented to the Shorthorn and Holstein breeders of Canada to purchase at prices set by themselves two of the choicest herds in the country. that represent a most careful selection, extending over several years, parent stock purchased at high prices with the object in view of building up herds of both the breeds second to none in Canada. All the cattle will be in the nicest kind of condition, and all the Holsteins are tuberculin-tested. Two of the richestbred stock bulls in the country are included in the offering, fuller particulars of which will appear in next week's issue. For a full description of the cattle, their breeding, etc., write for a catalogue to Thos. Cussion, Meadowbrook Farm, Whitby, Ont. By special arrangement the train leaving Toronto at 9 a. m. will stop at Whitby Station. The Holstein sale will start at 12 noon, and



## Travel Notes

(FROM HELEN'S DIARY.)
Wiesbaden, Feb. 10, '14.

My anticipations of a change of abode came true only too quickly. Aunt Julia had a few extra twinges in her knee and decided in the twinkling of an eye that the only place for her was Wiesbaden. There, she thought, she would find surcease from rheumatic sorrow. So, off to Wiesbaden we were hustled. But I do think she might have waited one more day, when she knew we were all going to the masquerade ball at the Deutches Theater that night. But that's Aunt Julia! Once she gets an idea in her head, you can't do a thing with her. So I just had to swallow my disappointment and pitch in and pack three trunks, and instead of having a gay time at the ball as I had expected, I found myself dumped in this water-soaked, fog-blanketed health resort.

We are at the Palace Hotel, a perfectly gorgeous place, but in spite of its grandeur it seems to me exactly like a big hospital. Nearly all the guests are more or less crippled, and hobble along the halls with canes or crutches or are wheeled in invalid chairs. It is fearfully depressing after the gay life of Munich.

And the fog!!! I haven't been able to catch a glimpse of the buildings across the street since we came. Looking out of the window is about as exciting as trying to see through frosted glass. And as for the sun parlor—it is as dismal as a cavern.

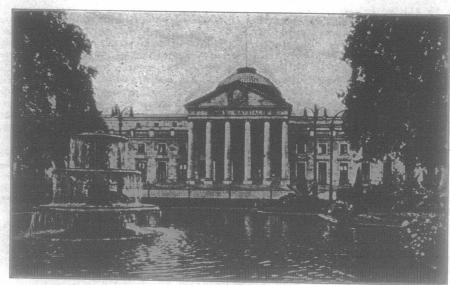
Baedecker says that Wiesbaden lies in a basin surrounded by beautiful orchards and vineyards. It may be true, but it's hard to believe. My private opinion is that it lies in a basin full of fog. I don't think there's anything in Wiesbaden but cripples and fog, and boiling water. There's so much hot water underground that the steam comes up through the gratings in the street.

The Palace Hotel is just across the street from the Kochbrunner where the go to drink the mineral water Aunt Julia wanted to be near the spring so she could skip over in the morning and get her before-breakfast drink. But I think "skip" is too rapid and rythmical a word to express her progress across the street. It is really a sort of adagio hobble. If there is such a verb in German as "to hobble," Aunt Julia's morning trip to the Kochbrunner would be expressed in that language somewhat in this style: "Every morning early, Aunt Julia is over the street after the Kochbrunner to drink been gehobbled." No wonder foreigners get muddle-headed trying to express themselves in this awful language. Every word seems to be put in the place where it will cause the most trouble to students, and some of the verbs are broken into bits and strewn all along the sentence. I quite agree with Mark Twain about German. He said it would take a clever person thirty years to learn it.

It has fallen to my lot to be Aunt Julia's morning escort to the Kochbrunner. The first time I went I nearly expired from suppressed laughter-it was such a droll sight. The spring is enclosed in a glass pavilion, and a long, glass-enclosed promenade leads up to it. At certain hours of the day, beginning as early as 6 a.m., the pavilion is open to visitors. All the regular drinkers have their own mugs, to the handles of which are attached numbered celluloid tags. These mugs are kept behind the counter, and handed out when called for. Nothing sounds more like swearing than to hear a big, fat German, with a deep, bass voice, call out his number to the waitress. For instance: "Sechzehnhundert-acht-und-zwanzig — it just fairly hisses all the way through.

Never shall I forget that first morning visit. It was cold and dark and foggy. The pavilion was filled with gloomy-looking men and women drinking out of glass mugs. Most of them were either lame, or fat, and some of them were both. There was such a sad funereal air about everything that the drink-line looked to me like a procession of mourners going up to take a last look at the gemains.

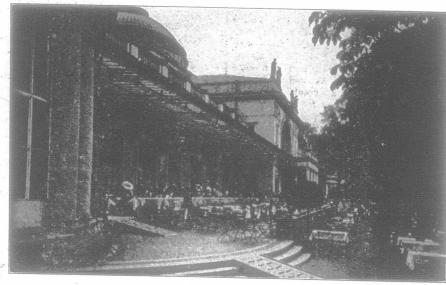
I have heard it said that Germany is the most rheumatic country on earth, but that as a compensation a kind and benevolent Providence has plentifully supplied the country with curative mineral springs. This may be all imagination, but a look at the map would seem to give it credence. Deutschland is fairly peppered with "bads," and that word always means a mineral spring of some kind. The waters of Carlsbad are especially good for the liver; Bad Nanheim for heart troubles; Bad Ems for throat



Front View of the Kurhaus, Wiesbaden.

The Kochbrunner water is supposed to cure rheumatism and reduce obesity—so the fat and the lame flock here by thousands. Over two hundred thousand people visit Wiesbaden annually for the cure. The output of the Kochbrunner is five thousand gallons an hour, and it never stops spouting day or night, winter or summer. It is used now almost exclusively for drinking, and the water from the other twenty-three mineral springs is used in the bathing establishments. But they do not depend on

and lung affections; Wiesbaden for rheumatism and obesity, etc. Then there is Baden-Baden; Marienbad; Wildbad; Bad Kissinger; Bad Homburg; Bad Harzburg; Bad Essen, and so on, by the hundred. I wonder if there is any "bad" any place that will cure baldness and produce a luxuriant growth of youthful-colored hair. I feel sure there must be one tucked away in some remote corner of this country. When it is discovered, there will be a grand stampede of the thin-haired and the bald-headed in that direc-



Back View of the Kurhaus, the Terrace Restaurant.

natural cures in Wiesbaden by any means. The town is a perfect hive of doctors—mostly specialists. To read the list of resident M.D.'s is enough to make the most cheerful person a deep, dark blue. You feel as if you must have something the matter with you. Of course, there are a great many famous physicians and surgeons here whose fame is so wide-spread that people from all parts of the world come here for treatment. There seems to be a special sanitorium for almost every ailment known, magnificent buildings they are, too—fine enough to be palaces.

tion, and somebody's pockets will be filled with gold.

March 1st.

After we had been here about ten days, Aunt Julia and the weather had both improved so much that we left the hotel and came up to this charming pension. It is located on one of the hills, and from our private balcony there is a delightful view. I have quite changed my opinion about Wiesbaden since we came up here. Those frightfully foggy days we had at first must have been winter's expiring kick, for when they vanished,

spring came in, and we had a succession of bright, balmy days. I have actually seen those orchards and vineyards mentioned by the all-knowing Baedeker, but they are still wearing the gray garb of winter.

If I had only stayed in Wiesbaden one week, I should have emphatically asserted that it was the most horrible hole on earth, but after three weeks' residence I can truthfully say it is a very beautiful and interesting city. The Stranger's Quarter is especially fine, architecturally, consisting chiefly of magnificent hotels, large, attractive pensions, and millionairish - looking private residences.

Wiesbaden resembles Rome in one respect; it is built on hills, but whereas Rome is credited with seven, Wieshaden has so many you can't count them. Beyond the city hills are more hills and beyond them rise the mountains, sometimes seeming to be quite near, and at other times hazy and indistinct.

The streets in the old part of the town are narrow and crooked, but in the modern part there are made wide and beautiful avenues. Wilhelm strasse, the main street, named, of course, after the Kaiser, is not only broad and straight, but also level; it combines commerce and pleasure, being bordered on one side with alluring shops, and on the other side by Kurhaus Park, and a wide promenade shaded by magnificent old trees. At certain hours of the day-at noon and late in the afternoon-when the visitors are all out for an airing, Wilhelm strasse is a cosmopolitan crush; the lame and the fat, the fashionable and the unfashionable, the visitors and the townspecple, all rub elbows on the wide pavement, and the jargon of tongues is like unto that of the Tower of Babel.

In the vicinity of the Kurhaus there are many ornamental benches for the benefit of exhausted pedestrians, and on warm, sunny days, every seat is occupied. It goes without saying that the benches are unusually strong; nothing frail could hold up the elephantine heavyweights that come here to take the cure. To see a row of them basking in the sun is suggestive of a comic Sunday supplement. A bench that seats eight average-sized Americans is barely large enough for two elderly, fat - upholstered German couples. Some of them, I'm sure, have not seen their feet for a long time-except, perhaps, in a looking-glass, and their feet are not small, either;-I think they could be truthfully catalogued as large objects.

With the exception of a few streets, walking in Wiesbaden is full of ups and The streets on the hills are like multiplied letter S's. Uncle Ned says they are so erratic they make him think of a scared hen running around a backyard. If you happen to absentmindedly stray off a street that is long enough to have a perspective, you are apt to walk around in a circle, or get lost in a network of unknown paths. Uncle Ned went out for a little ramble one morning by himself, and much to his surprise found himself on the top of the Neroberg (a high hill overlooking the town). had no idea he was anywhere near it until he was confronted by the Observation Tower. When he came home he remarked in an off-hand way:

"I've been up on the Neroberg. Fine view there. Can see the Rhine and the country beyond."

But he didn't go for a walk the next day. He said he had important letters to write, but I think he was stiff in the legs and wouldn't own up.

The motto of every German health resort seems to be: "Keep the patients either busy or amused." So in every resort there is a Kurhaus for the enterrainment and convenience of visitors. The Kurhaus in Wiesbaden is a very

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magnificent affair, and it ought to be, for it cost a million dollars. The interior is too gorgeous for words, but not for German taste. I think there is enough gold decoration on the ceiling of the concert hall sto support the entire German army. One can get anything desired in the Kurhaus-from a sausage to classical music. There are sumptuously-decorated conversation-rooms, and large, splendidly-lighted reading - rooms, where one can read newspapers from all. parts of creation except Canada. But there is a good supply of English newspapers containing more or less news from

There is one particular room in the Kurhaus which is very popular with old gentlemen. It is the chess-room. At all hours of the day it is full of gray heards so absorbed in chess problems they are oblivious to all else. seems to be a fine game for elderly, inactive people, with a fondness for chairs. Twice a day fine orchestral concerts are given in the Kurhaus. The audience is the most bald - headed one I ever saw. Looking down from the gallery, it fairly glistens, there are so many shiney pates. Those that are not bald seem to be gray. It is a very quiet, sedate, well-behaved audience. Sometimes an old gentleman goes to sleep and causes a ripple of excitement in his immediate vicinity, but as long as he does not snore it is all right. Disturbing noises are "verboten." One afternoon a gentleman who was sitting up near the platform had a sneezing fit. He made such peculiar noises that he upset the gravity of the orchestral players to such an extent that they became completely demoralized. The conductor was furious. He stopped the orchestra, and turned towards the audience in a blaze of wrath. Fixing his eyes on the unfortunate gentleman with the objectionable sneeze, he reprimanded him very severely for breaking the Kurhaus rules.

Of course, the ancient Romans have been in Wiesbaden. Where haven't they been? Away back in 300 A. D., Wiesbaden was one of their important forts. Relics of old Roman conduits and baths have been dug up near the Kochbrunner, and there is an interesting bit of the old fortress wall still standing on the side of the Heidenberg. This wall is called the Heidenmauer (Heathen Wall). On the top of this hill is an ancient burialground in which are some mouldy Roman tombstones.

I met a queer old lady there one day. She was sitting on a bench absorbed in her Baedeker. As I sat down on the other end of the bench, she lifted her eyes and peered at me over the top of her gold-rimmed spectacles.

"American?" she inquired, in a woolly Western accent.

I nodded.

"Thought so from the clothes." I was wearing a Munich suit, but I did

not tell her so.

"Interestin' place this," she went on, "Beats everything what gad-abouts them old Romans was. They seem have been every place, especially every wet

#### Experiment Work at the Central Experiment Farm.

A paper given at the Horticultural Convention, Toronto, by F. E. Buck, C. E. F.

Never before in the history of the world was there a period when such a vast volume of labor was performed, such years of careful and ofttimes laborious thought given, or such huge sums of money spent as are to-day performed, given and spent for what is termed Experimental Work. Every branch of hu-

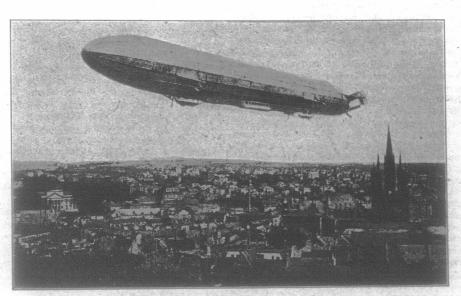
man effort has its experimental section. That ninety-five per cent. of nearly all such experimental work is negative in its results, or looked at in another way, is time, money and labor lost, and yet does not deter the human race in its effort to better its position and the things which make life more livable, is eloquent testimony to the indomitable courage and perseverance of the human spirit. It is not being too confident to affirm the five per cent. of successes in this experimental work of the last one or two hundred years has carried the world a larger step forward than that which it took during the previous two

thousand years. Now, while this great loss in experi-

mental work, due in some cases to negative results and in others to immature results which have to give place to more reliable results, as is the case to-day with the modern science of aeronautics-while this loss is to be regretted it is soon forgotten or honorably acquitted in the light of the small percentage of magnificent triumphs.

At Ottawa where the chief farm exists, which is the central one of the system of experimental farms, the like of which for rapid growth and perhaps efficiency is perhaps not paralleled in any country of the world, our work is of such a character and such kindly interest is taken in it by all sections of the Canadian people, that we are required to tell you, at the present stage of agricultural development, (through

also Curator of the Botanic Garden or Arboretum. In a young country like Canada work of this character undertaken by the Federal Government on such a scale had an outstanding value. In the first place it allowed reliable information to be issued in the form of semi-popular bulletins, such as those of "Hardy Trees and Shrubs," and "Herbaceous Perennials tested at Ottawa," very large editions of both these bulletina being now nearly exhausted; and in the second place the judicious distribution of such plants to the branch farms, public and other institutions where they attracted the attention of the public, has meant that for some years past, and at the present more than ever before the possibility of beautifying the individual home and



Zeppelin Airship Passing Over Wiesbaden.

our reports and bulletins), the results of all the one hundred per cent. of work undertaken, that is, the big percentage of negative as well as the small percentage of successful work. It is of course true, and we may have occasion to see why before we close, that the results of our work at the Central Farm and the branch farms show a better balance than that of typical experimental work indicated in the general statement. But the point here is, first, we should be more than satisfied if we can garner from experimental work a fair percentage of such successes as more than repay for all spent time, money and labor; and second, I wish if possible to use the remainder of this short paper in considering the successes of our work rather than consider it too much in its bulk form.

-t With Trees and Shruha.-At the very beginning of the experimental farms system in Canada, the work of testing, recommending and in some cases distributing hardy and desirable ornamental trees, shrubs and flowers was undertaken on a fairly extensive scale. The work was under the direct supervision of the late Director and the present Dominion Horticulturist who was at that time

making it a beauty spot has appealed to a large number of people who otherwise to-day might have homes as unattractive as those of many districts of the old world or the desolate homes of new settlers in our own land.

Countless shrubs have been tested and discarded. Others have proved of great value, and the good results rewarding the efforts put into this line of work make it stand out surely as of large importance in encouraging the strivings efter those things which develop the moral and ethical phases of our life.

This work is still going forward. Just now, to mention but one of its phases we have under observation a number of new shrubs and varieties of well-known shrubs which were introduced a few years ago from China and other countries by E. H. Wilson, of the U. S. Department of Agriculture, as well as other shrubs both donated and purchased. We are also putting shrubs to the test with regard to their suitability for certain purposes around the home, a phase of work rather new with us.

In this same regard the test of plants for hedge purposes is being expanded and kept up-to-date. Nowhere in the world, as far as I am aware, is there

such a complete and thorough test of plants suitable for hedge purposes, as that which may be seen under way at Ottawa. About one hundred different varieties of trees and shrubs are used. Many of the hedges are over twenty years old, while others are only one or two. Most are in ine condition, and many are very handsome and attractive. Visitors from all parts of the world compliment the farm on this collection, and enquiries are very numerous about plants for this purpose. A bulletin on the experiment will be published before

If I might mention a fact or two which we have discovered and which seem to interest visitors to our farm when such are pointed out to them, I should like to do so.

The following trees make almost per-

fect hedges:

All of the hardy birches, namely: lutea, populifolia, nigra, and lenta. The Larches both the American and European.

And several other trees; while some trees that might be expected to do better when grown for hedge purposes are not successful, of these the elm, the Manitoba maple and the Russian Mulberry are examples.

It is always a source of disappointment to attempt growing any plant with the dual-purpose in mind of a floral effect and a good hedge, because in pruning a plant to keep it to a hedge form the flower buds have to be sacrificed, consequently several of the most handsome shrubs make poor hedge plants. However, if a hedge with a distinctive character is required, any one of the following might be used:

Purple-leaved barberry, golden bark, red-leaved rose, cut-leaved alder, red-twigged dogwood, American beech and the following evergreens: Douglas' golden arbor-vitae, silver-tipped arborvitae, Irish juniper, and Swiss stone

Ordinarily we score a plant as perfect for hedge purposes when it measures up to the following requirements:

It must grow vigorously but not too rapidly, otherwise it will require too much pruning.

It must have an attractive appearance throughout most of the year, and must regain that appearance quickly after pruning.

It must permit being pruned to a symmetrical form and a form which will not hold the snow on the top in the

It must fill out well at the base when planted in single rows, at 18 inches apart in the row.

It must not winter-kill in places, and must not suffer from attacks of insects or fungus diseases.

These are the main points of a good hedge, and at Ottawa we have many which meet all these requirements.

. . . . Work With Perennial Flowers.-A few words only on perennial flowers. Mr. Macoun's bulletin on "Herbaceous Perennials," published in 1908, shows at a glance the immense number of these



Trial hedges at the Central Experimental Farm, Ottawa. On the left, from the figure of the man to the foreground, is Both these native trees make excellent hedges. a hedge of Yellow Birch.

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important plants. This group has been sulogized of late as being responsible for most of the recent good work in home beautification.

Our most recent work with perennials has been to test them for their effect under certain conditions. All the best of these flowers previously tested for other information, are now grown in a border 12 feet wide and 450 feet long, prepared specially for the purpose in 1911. In this border the five or six great seasonal groups of perennials are well represented. Such being the bulbs as tulips, narcissi, etc., for the first effect in spring, then the Irises, then the paeonies, after which come the first bulk of bloom, which is followed by the phloxes for late summer effect, and the asters for autumn effects.

It should be mentioned here perhaps that there are certain times during the summer when the amount of bloom in a perennial border is very small. One of these periods is that which occurs just after the bulk of the early summer plants have bloomed. Since this is a time of the year when a large number of people are expecting the flowers to look at their best, we are just now working to find suitable flowers to fill in these gaps in the floral year.

The Newer Work.—Having then briefly indicated that in the older work there are at least three lines of effort which we hope have met with a permanent success, and are proving of value, namely, the work with ornamental trees, shrubs and perennial flowers, I think it will be well to come to the second division of the paper, and tell you a little about work more recently commenced.

....

First of all, with regard to annual flowers. Annuals were of course grown at the Central Experimental Farm in past years, but no systematic attempt was made to record data relating to them, such as was done by Mr. Macoun with regard to the perennials grown in the arboretum.

Since 1911, however, the seed of several hundred different varieties of annual flowers has been obtained each year from warious seedsmen in this and other countries. Details are not possible here, but results have been obtained which are Some resuggestive and encouraging. sults have suggested other lines of experiment, for instance, the seed of a number of annual plants left over from previous years and saved for a test as germinability, was sowed just before the period of drought of last June and July. A certain number of the young plants which came up did not succumb to the heat and drought, but survived under the most adverse conditions and

of the regular test were over. As a point of interest it may be stated that they bloomed with us at Ottawa up till the end of October. From this we conclude that it may be well for us to try out most annuals under similar conditions, in order to know what can be recommended to people who wish to raise flowers under conditions that would make a weed blush to do well. There are, of course, people like this who write to us for information, some unfortunately who would willingly stint the care and yet accept the results; others there are, alas, who in arid sections can offer to the flowers but scant courtesy while doing so most unwilling-

One very interesting point of general interest which we have noticed and which has been called to our attention by visitors from the old world in connection with these annuals, is that the intensity of their colors is greater with us at Ottawa, than it is, say in England. The brilliancy of the whole patch of annuals tested at Ottawa was very great this past dry season.

To tell you anything about the recent experiments, commenced in 1911, with roses, more particularly the hybrid tea varieties, other than this, that already first edition of a pamphlet on roses has been exhausted and another edition will be ready shortly, is unnecessary perhaps, because what we have to say about the test so far will be said in that pamphlet. I must mention, however, that we started tests with sweet peas about the year 1910. So far these tests have been chiefly variety tests, but in future we are planning to make them cover in addition methods of growing, etc. We need definite information on several points, such as whether sweet peas will do well when grown under certain conditions in the same position year after year. We want more information as to the control of sweetpea disease and troubles, reliable data regarding which cannot be given till definite observations have been carried on several years. We do know certain things about certain methods which seem to contradict certain prevailing opinions. One is that sweet peas grown in a trench did not do so well in our soil as those grown by their side which were sown in level ground. Another is that those planted from six to twelve inches apart did not do so well as those planted three inches apart, and that those planted closer than this did best during the early part of the year

Since the sweet pea is so popular I thought I might be pardoned more readily for mentioning these details.

How Experiments Sometimes Originate.

The large' and increasing volume of

correspondence which falls to the lot of every officer at the Central Experimental Farm to deal with often contains questions which suggest by their frequency that experimental work should be started in new directions.

At the present time we have in mind several experiments which are in a measure to be taken up in order to enable us to give correspondents fuller information, and from a more local standpoint. In this class we include experiments which, while interesting a limited section of the public only, indicate that there are forces at work in Canada today which augur well for the culture of its people of means and their appreciation of beautiful homes. For instance, a few years ago practically no enquiries came to the farm with regard to aquatic plants, rock plants, etc. Such is not the case to-day, however, and we are preparing ourselves to give information on these and similar questions from first hand knowledge.

We have also in variety tests of cartain large groups of plants, such for instance as the perennial phlox, the paeony, the iris, etc., a very large field for persistent effort, for this reason: we have in all such groups too many inferior varieties, and too many varieties of ordinary merit duplicating each other, some of which should be eliminated. This question is, however, one for a trade meeting rather than one such as this.

Our effort to improve things in these connections, which of course have not been superhuman in the past, would be greatly strengthened, (I believe if I may say so personally and on the side), if those efforts could be prosecuted in coperation with the actual growers in Canada and elsewhere.

Lastly I should like to say that in all our experimental work at Ottawa we wish to keep in mind at least two things, one is improvement, that is, in the widest meaning of that word. Improvement is sought by selection, by introducing new things and discarding old, by rearranging old and new, by modern technique, by methods of culture, of control of insects and diseases, by the cultivation of that taste and knowledge of the best which leads to the improvement of those things that make better home surroundings possible. Improvement, that is, in things themselves and in the way of doing things. This must be the raison d'etre, the basis of our experimental work.

The other thing is this, bringing us back to the point where I remarked that it seemed to be true that the number of successes in the work at the experimental farm is perhaps greater than indicated in other connection, and for this reason we do not seek the new

things so often as the slight improve ment of the old and therefore ou chances of success are greater, and at the same time tremenously potent by accumulative force in the course of years. Even as much as is the advent of one new thing occasionally. The balance of the success of the experimental farm system is a creditable one we believe, and so long as we remember not to do work which other peopleother experimental stations in the States and elsewhere have already done; so long as we do not do duplicate work but remember to do work called for by local conditions, and know how to fit it into its place in life, and do it without deviation by discouragement of season or events, even so long will the experimental work be of a quality and quantity justifying, we hope its continuance and increase.

## Good Hardy Perennials for Canadian Gardens.

(By E. I. Farrington.)

With perennials alone, it is possible to have a gay garden the whole summer through. There are many reasons, too, why perennials are particularly well worth growing, chief among them being the fact that once started, they require comparatively little attention. They must be started in good soil, carefully prepared, however, if they are to have a long life and prove the success the gardener has a right to expect.

The soil where they are to stand should be dug over to a depth of at least a foot, and made fine with hoe and rake. Unless naturally rich, a bountiful supply of well-rotted barnyard manure or pulverized sheep manure or, lacking either, a ready - mixed commercial fertilizer, should be added.

When planting perennials, the gardener must be careful to allow for space enough between the plants after they have become well established. As some kinds grow tall and straight, while others are low and bushy, the habits of the plants must naturally be taken into consideration.

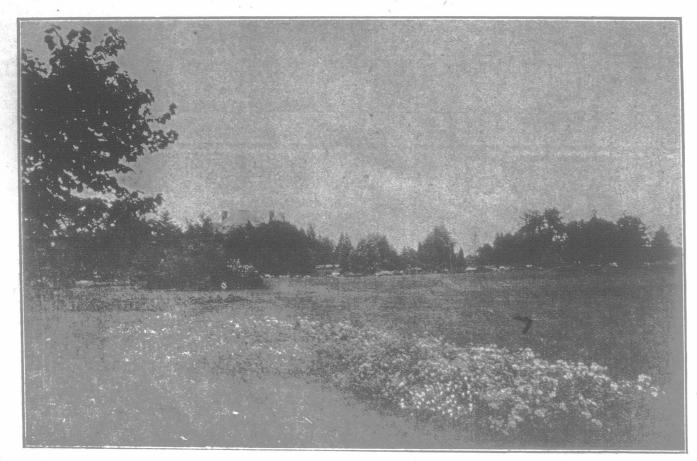
In the fall, the perennial bed may be protected by covering it with leaves or straw to a depth of several inches, but it is best not to do this until the ground has become first frozen. It is the alternate freezing and thawing which does the mischief.

There is no better perennial for the garden than the hardy phlox, which is very easily managed, asks only a moderate amount of attention, and will flower freely even if deprived of direct sunlight a portion of the day. After two or three years the old plants may be divided, so that in a comparatively short time a large bed of phlox may be obtained from a small beginning. These flowers naturally cover a long season, which may be extended several weeks by trimming some of the plants early in the season so that blossoming will be de-layed. Phlox comes in a variety of colors, and the large heads or trusses are equally attractive when they appear in a mass or distributed through the border.

Gaillardia, or Blanket Flower, has many admirers, and in its improved forms is exceedingly attractive. The variety known as Grandiflora will blossom from July until freezing weather, and its bright colors are delicate enough so that the blossoms are useful for decorative purposes indoors. Gaillardia will grow almost anywhere, and in any soil.

Monkshood is an old-time favorite, and a new variety now on the market will commend itself to all lovers of this flower. It is called Aconitum Wilsoni, and is named for "Chinese" Wilson, of the Arnold Arboretum, in Boston, Mass., who discovered the parent plant on one of his journeys into the remote parts of the Celestial Empire. It has large, paleblue trusses, which remain well through the month of October. The Marsh Mallows may be expected to do well in many Canadian gardens with a little winter They are very attractive protection. with their huge, hollyhock - like flowers. Probably the favorite variety is Crimson Eye, which grows four feet tall, and is pure white, with a crimson center.

Of the later flowering perennials, few are more satisfactory than the Rudbeckla, known as Golden Glow. In some gardens this plant grows so rank



This view shows part of the main lawn at the Central Experimental Farm, Ottawa, with the beds and borders in which flowers are tested grouped around its boundaries.

that it is almost a weed, but it is very easy of cultivation, which fact makes it particularly useful, especially to the amateur. It grows tall, and sometimes needs staking. Some gardeners say that by cutting off the flowers before they begin to fade, they are able to get a second crop.

Boltonia is another fine, tall-growing, late perennial, with blue, asterlike blossoms, produced in great profusion. A good specimen at the height of its bloom is simply a great blue ball. Another late perennial is Helium Autumnale, which is just as easy to grow and quite as lavish with its flowers. The blossoms are a very pleasing shade of yellow. There should be a place in every garden for both this plant and Boltonia.

Usually hollyhocks may be grown with success, and if well-started plants are set out early, they are almost sure to bloom the first season, and to continue flowering until late into the fall. Of late years, hollyhocks have been so badly affected by rust that many amateurs have given up trying to grow them, but this disease ... ay be kept in check if the plants are sprayed with Bordeau mixture very early in the season.

Foxgloves, catalogued as Digitalis, are strikingly handsome perennials, blooming in midsummer. They are very hardy, but do not flower until the second year. Growing to a height of four or five feet, they should not be planted where they will interfere with other plants. They need abundance of room, too, for a heavy mass of leaves is produced close to the ground, the flowering spikes shooting up out of them. Stately and old-fashioned as they are, they give a pleasant touch of dignity to the garden.

Of course, the hardy Pompon Chrysanthemums are not to be overlooked. Few perennials are better adapted to the gardens of Canada, and few make a finer show. They give color and life to the garden at a time when most neededlate in the fall, after Jack Frost has laid his blighting finger on all the more tender flowers. Frost has little effect on the gay little "mums," and flowers may be gathered in November. It is mecessary only to provide the plants with a well-drained location, and to cover them with litter late in the season. The matter of drainage is highly important, however. These chrysanthemums look well when planted in beds or at the base of the house, and the colors run through white, yellow, crimson, and pink.

#### THE REST ANNUALS FOR CANADIAN GARDENS.

Although there is not the wide variety farther south, yet conditions here are mer flowers, growing in any soil, yieldgrowing some sorts of ht for howers to perfection. Sweet peas, for example, glory in the moist, cool atmosphere, and blossoms of the finest character are produced. It is true, of course, that the sweet pea is not particularly easy to handle. It is a willful flower, and seems to have decided likes and dislikes. It is very hardy, though, and may be planted as early ground is in condition for cultivation. The best plan is to make a trench about five inches deep, planting the seeds in the bottom and covering them with an inch of soil. As the season advances, the trench should be gradually filled.

It is not easy to make the ground too rich for sweet peas, and a thorough pulverization of the soil is necessary in order to provide the proper feeding ground for the roots. It is an excellent plan to apply manure water once a week throughout the season. A little old soot dissolved in water and poured around the plants just when the buds have formed, will tend to give the flowers an unusual richness of color.

Nothing is better to support sweet-pea vines than brush. Of course, poultry wire will answer, but the plants are much more likely to be broken when it is used. It is very easy to injure the plants, and one must even be careful when picking the blossoms. Constant cutting is the price of an abundant supply, however. If one stops cutting, the flowers cease to come. Sometimes inmeet pests bother, but it is an easy matter to keep them in subjection by the use of one of the nicotine preparations now on the market. This poison comes

in Hquid form, and must be diluted. Another annual which is well adapted ly the whole summer through.

to Canadian gardens is Snapdragon, or, as the catalogues call it, Antirrhinum. Snapdragon is really a perennial, but it is best grown as an annual, and should be started in a box in the house in March, or in a hotbed. It is easily transplanted, and will flower almost anywhere, even in partial shade. It is one of the most persistent bloomers in the garden, and its handsome blossoms are often to be found after hard frosts have cut down almost everything else. Snapdragons come in many delicate shades, and are among the best of cut flowers, for they are very decorative, and last a long while.

Perhaps the hardiest of all annuals suited to Canadian gardens is the Pot Marigold, or Calendula, as the seedsmen call it. This useful, low-growing plant, crowded with its yellow and sulphurcolored blossoms, will grow where most flowers would die for lack of nourishment, and will thrive in partial shade. This is one of the very easiest of all garden annuals to grow. The seeds may be planted in the open ground, and the plants may be changed about at will. They often are convenient to use for filling in vacant spaces. Even if moved in bud, the blossoms will open. The first frosts make no impression on a pot marigold, which will remain in flower until November.

Still another very hardy flower which Canadian gardeners find useful, is Stocks, especially the ten-week variety. It not only makes a handsome showing in the fall, but is remarkably hardy, and if in a sheltered place will bloom very late in the season. It is best to sow the seeds indoors or in a hotbed in order to have flowers early. Of course, Salvia should not be forgotten. Its rather monotonous color does not appeal to all gardenmakers, yet late in the fall the bright red looks very warm and cheerful. is best planted against a background of green, and often is used along the base of a house. It is well to start the seeds under glass, but when once in the open ground the plants will make very rapid growth. A number of new forms of Salvia are now on the market, with colors which much surpass the common Splendens variety.

European travellers are acquainted with the delicate little flower known as Clarkia, which is often sold abroad in bunches on the streets. Clarkia is very easy to grow, and will thrive in poor It is well adapted to Canadian soil. gardens.

In the Godetia, we nave an annual The results are as follows: which is not so well known as it should be. It is really one of the best suming its blossoms with lavish generosity well for decorative and serving unusually purposes indoors. Plants started outside will give blossoms the same season, although for early flowers it is necessary to start the seeds indoors. Another flower often overlooked is Nicotiana, the sweet - scented tobacco plant. It is not at all hard to grow, and it is to be prized for its delicious odor, which is given off in the evening. 'The flowers do not open until the sun is going down, and close again before the middle of the forenoon. They are pure white, and grow on rather tall stems, so that the plant should be placed at the back of the bed or border. A most useful flower in any garden is Phlox Drummondi. It blossoms for a long season, is not at all particular about location, and is prodigal with its delicate blossoms.

Two other flowers which are well worth mentioning are Zinnias and Petunias. The former look best when massed at a little distance. They are stiff, and rather coarse, but make a good show, and continue blooming until late in the fall. Petunias are more delicate in color, and look well in the hardy border. Many new and delightful forms have been originated of late and, curiously, the smallest seedlings give the finest double blossoms. For this reason the weak little plants which one might naturally pull up, are to be cherished. One point to be remembered in growing the Petunia is that it must have an abundance of water.

It would be easy to continue the list of annual flowers adapted to Canadian gardens, but enough have been mentioned to show that it is an easy matter to have an abundance of blossoms practical-

## The Roundabout Club

## Results, Study III

Subject: Write an essay on the following quotation:

"Now, who shall arbitrate? Ten men lôve what I hate."

Judging by the great reduction in the number of essays received, Study III has proved one of exceptional difficulty.

Perhaps the subject was scarcely a fair one, yet we felt that it might be some test in regard to the breadth of the general reading of our students; also that it might stimulate those who are not acquainted with Browning to read "Rabbi Ben Ezra," one of the finest poems in the language. Taken in itself, the quotation afforded no mean subject for thought, and in marking the papers especial care was taken not to show partiality to those writers who had had the advantage of having read the whole Most of the readers of "The poem. Farmer's Advocate" are, however, familiar with "Rabbi Ben Ezra," of which a study was made, in this department, a few winters ago.

Our essayists in general have taken from the quotation the idea of the neces sity for individuality, for standing on one's own well-thought-out ground (although with ever-extending ideals), whatever betide. A few, however, overlooked the accompanying idea of toleration for the view-point of others; the idea that Browning proceeds to paraphrase as he goes on with the poem. "Ten men love what I hate," but, he implies, these men may have a different view-point, it may be one worthy of respect, too, since they "in ears and eyes match me." We cannot judge any man wholly by results, "things done that took the eye and had the price." The motives, instincts, and purposes of the man, ;'all the world's coarse thumb and finger failed to plumb," must be thrown into the bal-

" All I could never be, All men ignored in me." This, I was worth to God, whose wheel the pitcher shaped."

. . . . . Yes, a difficult subject, splendidly considered, on the whole, by our students.

Prizewinners .- W. J. Way, Kent Co., Ont.; Marian Bell, Middlesex Co., Ont.; "W. R. H.," Middlesex Co., Ont.; "Mollie O.," Oxford Co., Ont.

Taps," Wentworth Co. Honor Roll .-Ont.: "A Friend," Prince Edward Co., Ont.; "Grit," Grey Co., Ont.; "Rura," Halton Co., Ont.

> STUDY III. (By W. J. Way, Merlin, Ont.) "Now, who shall arbitrate? Ten men love what I hate.'

In terms of the subject, I constitute the minority; ten men who love what I hate constitute the majority. Someone has said that majorities are usually in error. I do not think that this is strictly a fact, though history and human experience prove that majorities often are in the wrong. If ten, or ten thousand men love vice and I hate vice, then, on eternal principle, not arbitrary assumption or determination, I am on the right side of the line between virtue and vice; if my quest is truth, and ten, or ten million men are in error, I must be with the minority; I cannot do otherwise,

Copernicus stood alone against the whole world with his word of truth regarding the solar system, and proved his Galileo and Kepler established their discoveries not merely in opposition to popular beliefs, but in refutation of the views of the learned and the great of their day, as was also true of Sir Isaac Newton and the law of universal gravitation.

In all notable achievements, some individual has taken the initiative. The minority have ever been in the van of the world's progress. From age to age, some personality of original mind has arisen as occasion or circumstances seemed to demand to lead or guide the cause his fellow would choose otherwise.

millions in art, science, commerce, government, religion,—a Moses, a Joshua Solomon, an Isaiah, a St. Paul, a John Howard, a Dwight L. Moody, an Edison, a Marconi, a Kelvin, a Carlyle, or some other voice from the heights or from the sanctuary of truth, speaking in the ears or to the minds of the many.

"Minority !" exclaimed John B. Gough, "if a man stands for the right, though the right be on the scaffold, while the wrong sits in the seat of government; if he stands for the right, though he eat, with the right and truth, a wretched crust; if he walk with obloquy and scorn in the by-lanes and streets, while falsehood and wrong ruffle it in silken attire, let him remember that wherever the right and truth are, there are al-

'Troops of beautiful, tall angels' gathered round him, and God Himself stands within the dim future, and keeps watch over his own."

Standing for the truth and right, then, one need fear no arbiter. Though victory be deferred, yet somehow, somewhere, he must win. As order in the material world has been evolved out of chaos, so the chaotic and conflicting opinions of men will in due time, under the advancing light of intellectual day, become modified and merged in universal agreement ? W. J. WAY.

Kent Co., Ont.

STUDY III. "Now, who shall arbitrate? Ten men love what I hate."

A superficial and hasty judgment mightat once suggest, why ask the question, "Who shall arbitrate when ten men love what I hate?" Should not the majority rule? Should not the evidence of ten men outweigh the evidence of one? Is not there strength in numbers? Should not the weaker go to the wall? Are not all these familiar and well-accepted axioms? Hence, why ask for arbitration? Should not the isolated feel his conviction or choice must be wrong in the face of the unity in the choice of the majority? To such a reasoner, arbitration would be called in question only when equality of numbers on both sides of the question might occur.

Such ideas might occur at first thought, but looking deeper, is there not some wholesome philosophy contained in the quotation?

The words suggest the value of every man's choice. It is not necessary that he cast aside his conviction, the product of his own thought and self, because some other fellow-mortal, and even the great majority of them, are not so con-stituted, and have convictions that do not accord with his. Hie, the feeli thinking, acting one, has, amid his varied experiences, his innate character istics, his especial environment, regarded as objects of scorn the self-same things admired by many others. The others, with similar or dissimilar influences, brought to bear upon their lives have arrived at the same conclusions, but these conclusions do not agree with those of the minority.

It is, perhaps, somewhat refreshing to find variety in tastes. Similarity and uniformity often spell stagnation. trast, competition, diversity, antagonism, are what give spice to life. I love and he hates the same things, seem at first thought hard to reconcile, but such verdicts seem in the nature of things, legitimate.

Who, then, shall arbitrate? Many of the poets and philosophers have discussed the principle involved in the settlement of such a problem. "Know thyself" was an ancient precept, set forth by Socrates to his pupil, Plato. He exalted the choice of the individual. It is not what others have concluded are the best things in life, but what we, ourselves, consider the best. In the words of Browning, "The common problem, yours, mine, everyone's, is not to fancy what were fair in life, provided it could be, but finding first what may be, find out how to make it fair up to our means. may care little or he may care much for riches, honor, pleasure, work, repose, since various theories of life and life's success are extant, which might easily comport with either estimate of these, and whose chooses wealth or poverty, labor or quiet, is not judged a fool be-

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We let him choose upon his own account so long as he is consistent with his choice. But certain points, left wholly to himself, when once a man has arbitrated upon, we say he must succeed there or go hang.'

Tennyson has the same idea in his philosophy of life expressed in those wellknown lines, "Self - reverence, self-knowledge, self-control; these three alone lead life to sovereign power."

Who shall arbitrate, then, but a man's own conscience? A man's choice is but the expression of his whole makeup. It is the verdict of his ill- or well-governed will, his feeling, and the strength of intellect that has been called in question. To love, when at heart I hate, is not a realization of self, is deceptive, and a violation of the old maxim, "Know thyself," or similar adages bequeathed by the sages. MARIAN BELL.

Middlesex Co., Ont.

STUDY III. " Now, who shall arbitrate? Ten men love what I hate."

In the years gone by, men were ever ready to avenge political or social wrongs by the use of the sword or other similar weapons. Even a petty quarrel or seeming insult resulted in a challenge which in turn ended in a duel. Those days are past and gone, and now the one who is wrenged brings his accuser to judgment. Sometimes it is left to one to decide, sometimes to a number, but whichever be the case, we seldom see the decision accepted without comment and criticism. The judge and jury who have sentenced a prisoner to penal servitude, or even death, are severely censured by some who have seen some good in the man, and some excuse for his fall. Great political questions, too, are left in the hands of a chosen number, and thousands are dissatisfied with the result of their agreement. In social life, judgment is passed from mouth to mouth, until a man or woman, as the case may be, finds himself or herself, ostracized or lionized as the populace see fit. Even in our quiet home life this goes on. Almost unknowingly we decide questions by conferring with one another; in short, by arbitration, and as in more important problems, someone has to let his or her opinion be overshadowed by the majority, or by the strongest argument.

Whence comes this right to pass judgments. We read in the Book of Books, 'Judge not, that ye be not judged." "If any man think that he knoweth anything, he knoweth nothing yet as he ought to know; One believeth that he may eat all meats, another who is weak eateth herbs; one esteemeth one day above another"; and to quote Emerson, 'One man's justice is another's injustice one man's beauty another's ugliness, one in his brother's way." man's wisdom another's folly, as one beholds the same objects from a higher point of view." The man who pays his debts looks with scorn on the one who is remiss in this, while the latter may be doing duty neglected by the former, and in his sight, of more importance. Every man has his own mind, and his own method of doing things. We are all wise in our own way. The difference between persons is not in wisdom, but in the art of showing it, the skill and tact with which it is managed. The two elements of power and form are necessary to keep proportion sweet and sound, and proportion is required to keep even, the great pendulum of the world.

It is an old saying that "Half the world knows not how the other half lives." If, then, we are unaccustomed to their mode of life, their habits, temptations, and opportunities, what right have we to censure them for their actions. One man does what he thinks fit, and abstains from what is unfit, and often in this he and his neighbor agree but let one undertake the direction of the other, and false relations are soon set up. Undertaking for one another is the blunder which sets the world in general at cross angles.

"Ten men love what I hate." One man can take his drink, and uses arguments to show that it is beneficial, but we know all too well, that this beverage which may not harm him, is the ruination of thousands. The student loves his books, the mechanic his tools, the tion toward it will necessarily conflict

target for the Socialist, and the poor man, yet each is necessary to make up the world. The same trouble is to be found in church matters. Although the great question of Union has been discussed, we are still far from it, for do not the Anglicans think the others should unite with them, and the Baptists think their creed the correct one, and so on, with all denominations. But if we would stop and think, we would ask, "Are we not all wrong?" for in the Great Beyond there can be but one church, and who will dare say which it shall be?

Questions of great political or judicial importance are usually given careful thought, and the decisions given are accepted as final, but it is in the smaller questions of life that the habit of passing opinions and deciding when, where, why or how often causes us to reconsider and regret our words. A rumor is started concerning a new resident. It is passed on, and very soon the newcomer finds himself or herself welcomed or shut out as the gossipers see fit. How often their verdict proves wrong, and we see those same persons trying to undo what their slander has caused. We are often compelled to recall the words of the poet:

"Oh, wad some power the giftie gie us To see oursel's as others see us ! It wad frae monie a blunder free us And foolish notion."

And we wish we could cover the blunder by recalling the words of criticism and judgment, which we, in our folly, allowed ourselves to say.

so we might go on indefinitely naming things which are meat to one man and drink to another, but the great question which confronts us, is, what right have we to decide what concerns others. To judge a man aright, we must know his innermost thoughts, his motives; we must see his heart, as it were, and with man this is an impossibility. We cannot conceive the temptation of the man who has fallen. We cannot follow the thoughts the genius who is neglecting his duties, devoting time and energy to his invention. We know naught of the hereditary weakness the man with the craving appetite has. We do not know all the minor details and workings which finally entrap our fellowmen and place them in range of our criticism. Who shall arbitrate? For the answer, I would refer you to the second chapter of Romans, which reads, "Therefore thou art inexcusable O man whosoever thou art that judgist," and to the fourteenth chapter, where we find, "Let us not therefore judge one another any more, but judge this rather, that no man put a stumbling-block or an occasion to

W. R. H.

STUDY III. "Now, who shall arbitrate? Ten men love what I hate.'

It is of the strong passion, love and hate, that the poet Browning asks this question.

Likes and dislikes may easily be arranged. They are amenable to reason. They are attached to things of minor importance, and can be controlled. We may dislike to go to bed at night, to get up in the morning, to take the necessary trouble of keeping up our personal appearance, but given a strong enough controlling motive, we quite lose sight of these dislikes. The mother's love for her child quickly puts aside any dislike of personal inconvenience. Love of property or possessions will rouse us quickly if these are endangered. Neighbor love will quickly respond if our neighbors' lives or property be in danger, while as to taking trouble about personal appearance, we will gladly do it to give pleasure to those we love.

Against love of good there is no need for arbitration, nor against hatred of evil. But when some of us love and others hate the same thing, something must needs be done, for there is nothing passive about love or hate. If we love or if we hate a certain thing, our love or our hate call for action, and our acmusician his instruments, and each calls with the action of those whose attitude into play the different thoughts and ac- toward the thing is the reverse of our tions of man. The man of money is a own. Some of us must be wrong, and

trate?" Even the majority of ten to one does not prove that the ten are right. Ten men may love and one hate, wrongdoing. This does not put the one Ten men may hate, while in the wrong. one loves, the laws which govern them. Are the laws, therefore, wrong? The thing the one person hates may be better hated than loved, or, on the other hand, the thing ten persons love, it may be lawful for them to love. contend that majority is no indication of right or wrong. These lines suggest our rights as individuals, and more. They suggest our rights as individuals in relation to the rights of other individuals.

The time element enters into the consideration of this subject. Browning says, "Now, who shall arbitrate?" He is talking of the present. [Some take this "now" merely as an argumentative, introductory word .- Ed. ] In the previous stanza, he spoke of the future. In the future, when age shall have revealed the truth, who of us, he wonders, will be proven right. Then the true stations of us in the past will be announced. But that will be when time has thrown its light upon what now seems dark, and as we cannot have this light in the present, to whom shall we go, or who shall arbitrate for us? We are all alike in having ears and eyes, says the poet, yet here the likeness seems to end, for we cannot reach the same conclusion regarding what we hear and see. Some follow what others shun. Some slight what others receive. Who is right? Who shall tell us? Since there is no one beyond the grip of our ruling passions of love and hate, no one dispassionate enough to calmly weigh and judge, let us turn to Him whose higher wisdom is ours for the asking. He sees the end from the beginning, sence all things are in their proper perspective with Him. MOLLIE O.

## CROWDS.

Before our Roundabout Club session for to-day is closed, our members may be pleased to read an extract of a letter written to us by "Taps," who suggested the subject for Study II, "What I am in my heart aiming for."

"Shall I tell you where I got the idea?" He says: "It was from reading a notice in the book reviews of Gerald Stanley Lee's new (Crowds). So this winter, since the essays were written, I looked up the original volume in Hamilton Library. Just supposing you haven't read it, I'll say a little about it. In the first place, it is one of the strongest books I ever looked at. 'Crowds, a Moving-Picture of Democracy," is the name, and as an illustration of its queerness after some five hundred pages of reading matter, where most authors write 'The End.' he has 'The Beginning.' He says, 'In a little while, five million people will be reading 'Crowds.' 'I would like to have an immense brass band heading a parade thousands strong with banners, march up Broadway shouting, 'Have you read Crowds!' And all through the book he keeps asking, 'Where are we going to?' 'What do we want?'-we as Americans, we as British, we as a world — and when one comes to think of it, people, individuals, masses, nations, don't seem to know any of these things. So he says if only a few earnest-thinking people could answer his questions and find out, it would be a step forward. the Roundabout Club has answered it. The most interesting part of it all is that he seems to take the stand that most of our L. S. members did. not afraid to be good, and say so to other people, and tell them to be good.' That is the substance of his If you have time, read the words. book."

I believe Study II was worth while, wasn't it? Good luck to our Club, and best wishes

to "The Farmer's Advocate." New Postal Regulation.

Take Note for Pattern Department. By a recent order of the Postal Department, the sending of coin or banknotes in unregistered letters is strictly prohibited. Stamps are not specified, therefore the price for patterns may be forwarded in stamps or by postal note. Send stamps for amounts under 20 cents, postal notes for over that amount; or send by registered letter.

## Hope's Quiet Hour.

What Love Cannot Do.

He saved others; Himself He cannot Bave.-St. Matt. 27: 42.

"With taunts and scoffs they mock what seems Thy weakness, With blows and outrage adding pain to pain ;

Thou art unmoved and steadfast in The meekness; When I am wronged, how quickly I complain !"

This week, true lovers of Christ are turning their eyes towards that awful mystery-the Crucifixion of the Incarnate Son of God. The Cross looms black before us, and ringing in our ears is that prophetic cry of Jeremiah:

" Is it nothing to you, all ye that pass by?

Behold, and see if there be any sorrow like unto

My sorrow, which is done unto me. Whom the LORD hath afflicted in the day of His fierce anger."

It is indeed something to us, who cannot "pass by" indifferently, but are drawn by the great attraction of the King on His throne of agony. "Love is the greatest thing in the world"-is there anything love cannot do ?

Listen to the glorious taunt hurled at our Master by those who triumph in their short and inglorious victory: "He saved others; Himself He cannot save!"

There is first the admission that He saved others. That could not be denied then, and it cannot be denied now. Multitudes which no man can number, sing the glory of Him Who has saved them from sin and misery, bringing them out of darkness into light and peace and joy. Christ has proved himself mighty to save others-He is saving thousands every day. After nearly two thousand years He is still the only Saviour of men from sin. What other name under heaven has ever saved from that worst evil of all-sin? There have been other great leaders-but to whom can sin-sick souls turn for salvation except to Him Whose very Name-JESUS-means "God the Saviour?"

The priests and scribes, even in their mockery, were forced to own that He saved others. Strange that they ventured-while acknowledging His powerdare Him to show it. "Let Him come down from the cross, and we will believe Him '' they cried trusted in God;"-another great admission of His character, which ought to have had weight with the religious leaders of a religious race-"let Him deliver Him now.

Think of the mighty power held in control by that silent Sufferer. His very love bound fast His hands and feet. There was one thing that He could not do—save Himself. If He had been tempted by those cruel, dangerous taunts to come down from the Cross and crush His foes, Love would have been beaten. If He had saved Himself, the taunt would have been terribly reversed, and our despairing cry-the cry of a sin-sick "He saved Himrace-would have been: self; others He could not save."

Christ is our Example as well as our Saviour. It is not enough for us to trust in Him for forgiveness. Listen to His own solemn warning to His disciples: "If any man will come after Me, let him deny himself, and take up his cross, and follow Me. For whoseever will save his life shall lose it: and whosoever will lose his life for My sake shall find it." That warning was given when St. Peter tried to show his affection for his Master by turning Him from the Way of the Cross. He warned them that He not only could not save Himself, without disastrous failure in His great mission, but that they also-if they would come after Him-must be willing to deny self, and be prepared to lay

down their lives for love's sake. In the Collect for the Sunday before Easter, we look up to Christ on the Cross, and pray that we may follow the example of His patience. We dare not pray that we may be saved from painsome of us right, but "who shall arbiDED 1866

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The other day I received a letter from a

a far nobler and more successful thing to live for others than to secure earthly advantages for ourselves.

The most successful Life the world has ever known began this earthly career in a stable and ended it on a Cross. Though our lives look very poor beside His, we must not give up the struggle in despair.

Let us, in small ways, try to follow the example of His patience.

How pitifully weak we are when we bitterly resent the smallest slight and the most trifling word of unkindness, or grumble at some little discomfort. We feel ashamed as we look at our King,

at least, we feel ashamed to seek our we all find out by experience that it is repaying cruel insults and deadly outrages with a great love which pleaded for the forgiveness of His enemies. We make so much of our pain-yet He seems to have forgotten His agony in self-forgetful thoughtfulness for His mother and friend, and for the thief who was suffering at His side. Our faith sometimes gets troubled when God does not see fit to give us exactly what we ask, but our Leader-conscious of His finished and perfect earthly life-trustfully commended His dying human body and radiant human soul into His Father's keeping, although the Father's reward for His life of stainless innobence seemed to be desertion.

How often we hear people say of a good person who is called to endure much trouble and pain: "What has he done that he should be so punished? "Christ Himself tasted that bitterest sorrow of all, when He "was made sin for us" and was forced to endure the awful punishment of sin-the hiding of the Father's face. Because He endured the full force of God's hatred of sin, we can always be sure that God will not forsake us. Why should we cry out as if we were badly treated when our time for enduring the cross comes? We are soldiers of the cross. We are warned that the disciple cannot be above his Master, and that our everyday duty is cross-bearing.

are on Him Who pleased not Himself.

What a failure we shall make of this life if we use all its riches for our own gratification! We cannot begin too soon to follow in the steps of Him Who could not save Himself, because He was spending Himself to the uttermost in the service of others.

mother of three little children, enclosing a dollar from them "to buy something nice for some little tots like themselves who may be less fortunate." The mother ways: "I thought it might teach them to divide." What a great lesson! May

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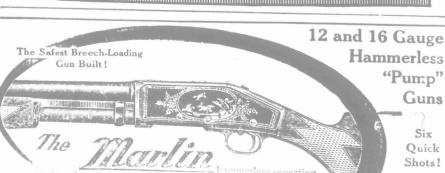




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a discourch action) Double Extraclles rapidly: guaranteed in shootguaranteed in shoot-

The Marlin Firearms Co., 113 Willow Street, New Haven, Conn.

One who lives only for himself loses his When he dies his life on earth is But one who is always pouring his riches of strength, of thought, of time, money and service into the lives of others, goes on living in those other lives, and in generations yet unborn. Abraham and Moses, St. Paul and St. John, Luther and Wesley, are still inspiring and helping our race. Florence Nightingale is pouring out her life-

"saving others"-in countless hospitals to-day, just because she "could not save herself" or live a comfortable, care-free Love cannot save itself-else it would

not be love. The mother and father must willingly spend and be spent for their children, and the children in their turn must gladly serve their parents and care for them. The scientist eagerly gives hours and years of hard study, and is sufficiently rewarded if his discoveries are a help to his own and succeeding generations. One works with his hands. another with his brains, another with the money committed to his trust. Only a miserable miser hoards his wealth and loses all its power by refusing to use it. If you cultivate your powers of mind and body for your own gratification only, you are failing in the great business of life-loving. Even holiness is not to be sought by a would-be saint for himself alone. "For their sakes I sanctify Myself," said our Example, "that they also might be sanctified."

Let us be ashamed of our inglorious self-pity when called into the glorious fellowship of cross-bearers. Do we want to slip in selfish ease through the battle of life, leaving all the burdens we can shirk to be carried by braver and nobler

## The Ingle Nook.

[Rules for correspondence in this and other Departments: (1) Kindly write on one side of paper only. (2) Always send name and address with communications. If pen name is also given, the real name will not be published. (3) When exclosing 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.]

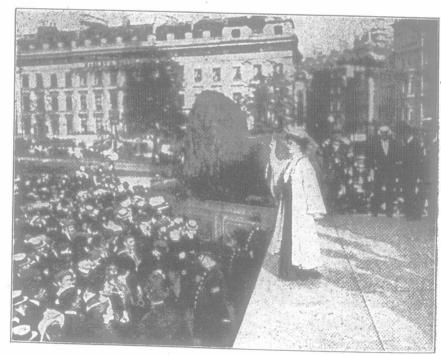
## Mrs Pankhurst

(Continued.)

Last week we looked for a time at the reasons why women have felt that they needed the right to vote, regarding the Pankhursts as a product of the time rather than as the originators, as they are so often erroneously held to be, of the woman suffrage agitation.

I spoke, too, of Mrs. Pankhurst's tour through Canada, and of my having foolishly missed the opportunity to hear her speak. I remember, however, that at the time friends who did go came home enthusiastic and frankly astonished. They had expected to see a masculine, shrewish, although perhaps brilliant woman. Instead there came upon the platform a dainty little lady, with a little look of sadness upon her face, quiet of manner, earnest, eloquent, with a fire in her eyes that meant not 'sex-antagonism''—that foolish imaginary thing so much talked about nowadays,-not personal ambition, for Mrs. Pankhurst is aware (and who more so?) of the ridicule that has been heaped upon her, but the fire of belief in a cause, that cause the raising, as she sees it, of over half of humanity.

Upon the whole the general description of her corresponded very closely to a



Mrs. Pankhurst Speaking in Trafalgar Square, London, England.

souls? We often sing: "In the Cross charming little sketch of her, written by of Christ I glory"-don't let those brave words come only from the lips, when they might be enshrined in our hearts and lived out daily just where God has placed us.

"Not forever in green pastures Do we ask our way to be; But the steep and rugged pathway May we tread rejoicingly. Not forever by still waters Would we idly quiet stay, But would smite the living fountains From the rocks along the way."

DORA FARNCOMB.

One Who Wants to Help. Just as I finished this "Quiet Hour"

the postman dropped in the box a donation "for the poor and needy" from 'one who wants to help"-two dollars from an anomymous reader of our corner. Here is another who cannot save herself, because she is bent on saving others. I will spend the money to-day on food for two poor families. My part is easy and delightful. Thank you!

HOPE.

Miss Evelyn Sharp for Harper's, which I clipped out, and may now give you. "I remember," says she, "my first impression of Mrs. Pankhurst, when I saw her take the chair at the Caxton Hall on February 13th, 1907. I do not quite know what I had expected to see, but I know I had never pictured so small or so young-looking a woman as the one who walked on the platform and stood there waiting for the uproar of applause to cease. But the woman was greater when she spoke. Standing motionless and silent, she had the face of a woman who, though she retained her ultimate belief in human nature, could point to years behind her of sadness and effort, and perhaps disillusionment as well. Speaking, her head erect, her eyes afre, her strangely beautiful and magnetic voice easily filling every corner of the hall, she seemed to me that embodiment of the new woman who is looking forward to a great future, with a great hope in her heart. That was the day when the audience again formed itself into a deputation headed by Mrs. Despard, only to be met by mounted police who rode them down and prevented their entering the House, as a consequence of which 78 women were sent to prison."

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woman suffrage really began as long ago as 1866, when John Stuart Mill brought th up in the British Parliament, according to strictly constitutional methods. Dr. Pankhurst was one of his strong supporters on the question, and when he married, his wife, then a girl of twentyone, who had received a liberal education in Paris, was not slow in being won over to recognize the reasonableness

of the agitation. For forty years the campaign was carried on in this way. The earlier advocates bombarded Parliament with petitions, and between 1867 and 1884 more than 3,000,000 signatures were pre-But importunity does not always bring the coveted reward. In 1884 Gladstone, good old man though he was, pronounced so emphatically against it that for the time Women's Suffrage seemed to become a dead issue. It had, in short, become a joke, rumpling along in the same category with the "tramp" and "mother-in-law" witticisms of the newspapers and the streets, and any woman who dared to speak in favor of it was looked upon as a freak and an ugly excrescence upon the conservatism and propriety of the "precious isle set in a

silver sea. But-there were the Pankhursts. In 1889, depending upon the numbers of sympathizers of which they were assured, formed the Women's Franchise



Mrs. Pankhurst and Her Daughter in Prison Garb.

League, whose first address was delivered by Dr. Pankhurst, but for some years the milestones of their progression were stamped chiefly by political changes. First they joined the Liberal party, then not finding the sympathy they had expected there, they went over in 1894 to the Independent Labor party which professed to draw no sex distinctions.

In the meantime Mrs. Pankhurst had been studying social conditions, and doing social work. She had come into close contact with poverty among women because of starvation wages, and though in comfortable circumstances herself her heart was big enough to throb with sympathy for her less fortunate sisters. Concrete cases of distress were continually appealing to her. — A mother who lost her reason because of the impossibility of making a living for her family; a little waitress who, one day, quietly took her own life, leaving a pathetic note in explanation, "I am so tired;"there were many instances such as this, and each put another nail into her platform: the conditions governing women must be raised; securing the franchise was the one means by which they could

be so raised. The sadden death of Dr. Pankhurst removed from Mrs. Pankhurst the dearest sympathizer and supporter she had known; but Mrs. Pankhurst never once though: of withdrawing into the hermitage of self-obliteration and uselessness into which so many widows, and particularly those of the old school, seem to feel called upon to betake themselves. Ever a worker, she now took the position of registrar of births and deaths in

her home city, assuming the duties there involved in addition to her self-assumed social work.

Indeed, the Pankhursts could not be parasites. The daughters, too, as soon as they were old enough, undertook strenuous work. Christabel studying law and Sylvia art. So it was that they learned the world and its problems as women in comfortable homes who never venture past their own piazzas can never learn them.

Christabel graduated from Victoria University, Manchester, in 1905, taking her degree as Bachelor of Laws with honors, and it was really the official refusal to admit her to the Bar, because she was a "woman," that made her determine to devote her time to the women's rights question.

. . . .

When the Women's Political Union was founded in 1903, shortly after the death of Dr. Pankhurst, Mrs. Pankhurst became, naturally, one of its foremost supporters.

For some time yet the demand for votes for women was conducted in an orderly way; then came the dramatic incident of October, 1905.

Upon that occasion Miss Christabel Pankhurst and Miss Annie Kenney, a mill girl, arose in a political meeting at Manchester and asked Sir Edward Grey what position the Liberal Government purposed taking in the matter of giving votes to women. The newlyformed Woman's Social and Political Union wished to know. Sir Edward refused to reply to the question, whereupon Miss Kenney unfurled a pennon bearing the words, "Votes for women." At once an uproar broke loose, the women were hustled to the door and there arrested. Theirs were the first arrests in England for heckling. The "woman's war'' was on.

Speedily the scene was transferred to London, and the meeting held at Caxton Hall, referred to by Miss Sharp, put the movement in order. One of the first members there was Mrs. Pethick Lawrence, who had been doing social work among the outcasts driven on the streets by poverty. She and Miss Mary Neal had taken rooms in a workman's house, and these now became a centre for sympathetic meetings and the drafting of plans. In the meantime, Miss Sylvia Pankhurst, who was carrying on her art studies at Chelsea-that spot hallowed by associations of Carlyle and Rossetti, Burne - Jones and Morris and Whistler,-was making little suffragette banners of white linen, painted with the green and purple of the suffragettes, to be used in demonstrations.

From that time the warfare became etronuous. In February Mrs. Pankhurst made her own first appearance as a militant by leading a "raid" on the House of Commons. She was arrested, sentenced to six months in the workhouse, and served every day of her time. In October of the same year she was sentenced to another three months for inciting to riot, but the possibility of a "hunger-strike" had occurred to her. She tried it and was promptly released, whereupon she came

on a lecturing tour to America. On her return she was again arrested for leading 400 militants in an attempt to interview the Prime Minister. Next came the window-smashing escapade of 1913, when hundreds of fine plate-glass windows of fashionable West End stores were broken by apparently innocent-looking ladies armed with hatchets conveyed under their ulsters. As a result Mrs. Pankhurst and Mr. and Mrs. Pethick Lawrence were convicted and given nine months in penitentiary as punishment After a hunger-strike of nearly five weeks Mrs. Pankhurst was released, in a very weakened physical state.

. . . . . Bad quickly became worse, so far as suffragette outrages were concerned. Buildings were burned, golf-links destroyed, acid and pitch were poured into mail-boxes, ministers were cuffed, political meetings upset by heckling. have even taken human life in their fight for liberty," declared the women in extenuation of their methods; "we do not take human life; we only destroy property." . . Nevertheless residence in the English cities was becoming unbearable, and women were arrested by the score. . . In fairness it must be

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said that they were not always guilty of the offences charged to them. In more than one instance it was proved that men took advantage of their reputation to fire their own buildings for the sake of insurance, leaving suffragette literature about to turn suspicion. It must also be said that the women were often brutally used by the police who effected the arrests. Assuredly they were not in the movement for any "fun" they might get out of it.

As the arrests became more numerous the hunger-strike became more fashionable, and, when it was necessary to release Mrs. Pankhurst again, after a three years' sentence to penal servitude for having incited to the destruction of Mr. Lloyd-George's unoccupied mansion by a bomb, it seemed necessary to devise some more effective means of "punishment." Accordingly Mr. Mc-Kenna devised the "cat and mouse" act, providing that anyone released because of a hunger-strike might be rearrested as soon as health was recovered. Mrs. Pankhurst met this by refusing to drink water. When forcible feeding was introduced the suffragettes clamored with one voice that it impaired the health of those upon whom it was exercised. They also have complained that although the imprisoned suffragettes should be classed as political prisoners, they have been put into divisions with thieves and vagabonds.

So the war goes on at present, and there seems no end to the new schemes for annoyance devised by the ingeniousness of the women who now rank themselves under the suffragette banner. One can scarcely pick up a paper without reading of some new freak, and of arrests and imprisonment resulting

As I have said before, with this phase of the suffragette movement, I have no sympathy whatever, and it seems to me as to many other lookers-on of the movement, a marvel that the women have become so obsessed that they cannot see that their tactics, now at least, are only hindering their cause.

Some time ago Mr. Lloyd-George was rather outspokenly in favor of granting woman suffrage, and promised that the meatter would be brought up when a few other important questions had been disposed of. But the women could not wait. It was "now or never"; the warfare went on, and the sympathy and great influence of the Chanceller of the Exchequer was lost.

At present the suffragettes chiefly blame Mr. Asquith for the holding up of their plans,-"that obstinate old man," as Mrs. Pankhurst calls him, "who blocks the way," but it is fairly safe to say that so long a succession of outrages, from which not even the best works of art of the nation can be held safe, has successfully alienated the sympathy of many others in Parliamentary halls who might otherwise have been brought to give woman suffrage their support.

The women certainly have a "cause," and woman suffrage is bound to come,the whole upward trend of the world for justice to all living things makes for that. What vicissitudes the militant movement will pass through, however, before it gasps out its last gasp, defies one's powers to prophesy. Let us hope that the granting of woman suffragenot because compelled by the strenuous tactics of the suffragettes, but because of the growth of all that is fair and broadminded in man-will bring it to a pleasant and effective close.

To those who wish to follow this question further I may mention the followblooks: "The Suffragette," Sylvia Pankhurst, (Gay & Hancock, London, 6s. net). "Woman and Labor," by Olive Schreiner. "Woman and To-morrow," by W. L. George, (Herbert Jenkins, Ltd., London, 2s. 6d. net). "The Truth About Woman," by C. G. Hartley (Dodd, Mead & Co., New York, \$2.50). JUNIA.

## FINISHING WALLS.

Dear Junia,—Will you please advise as to finishing walls of a two-story cottage? Would you advise tinting walls and ceilings of bed-rooms, or if paper is used would you paper ceilings? Also would you advise papering ceilings downstairs or having them white? Are mouldings still used?

A CONSTANT READER. Northumberland Co., Ont.

Paper is still popular for all the rooms of a house, ceilings included, but many people prefer to treat the latter with such preparations as "flat-tone" (dull finish) oil paint, muresco, alabastine, etc. Even the walls are often treated with these, the dull-finish paint being especially liked by folk who are extra anxious about sanitation, because it may be washed off so easily.

When paper is used every scrap of old paper should be removed from the wall.

If left on, the accumulation of paper and paste, "four deep" or more, is like ly to form a nursery of moulds and mouldy smells, disagreeable and insanttary. When putting paper on new walls it is necessary to treat the walls first with a "size" of thin glue-water. otherwise the paper will not stick. Let the glue-water dry thoroughly, then put on the paper as usual.

The papers this season are exceedingly pretty and dainty, many of them resembling textiles. Plain papers such as oatmeal" and those resembling chambray, are as much in favor as ever among people of quiet tastes, especially if meant to be a background for beautiful pictures; but there are also very handsome foliage papers in deep, softly rich colorings, that remind one of fine old tapestry, and are very good for living-rooms, dining-rooms, and halls.

Daintier papers in lighter tints and delicately indicated floral patterns are shown for drawing-rooms and bed-rooms. Some of the embossed papers are also very effective, but also very expensive.

Cream, ranging from the palest ivory to a rich buff, is the best color for ceilings. The "drop" ceiling has lost none of its popularity, and is almost invariably used where the walls are high. A wooden moulding is, of course, used to cover the line at which it joins the wall-paper. Plain wooden mouldings are necessary for the lower border of all friezes, etc., and sometimes narrow wooden slats are used to divide the walls of dining-rooms and living-rooms, into panels, but the wide "plate-rail" moulding is not as much in favor as formerly. Dusting the plates, etc., placed upon it, proved to give too much work, and so these have been very wisely relegated to built - in cupboards where glass doors can reveal their beauty and still keep out the dust.

The coloring of wall-paper is very important. It should form the background for the entire color-scheme of the room, and should harmonize with the leading tones in rugs, curtains, etc.; neutral tints, e.g., olive-green, gray-green, smoke-gray, tobacco-brown, soft tan, old blues, etc., are, as a rule, best. Also the walls of rooms that open into one another should harmonize. Can you imagine anything worse than a "red room' opening into a "blue roo Worse still if the blue room opens, in turn, into a green room | It is worthy of note that treating all the rooms of a flat in harmonious tones tends greatly to make a house look larger than when no judgment is exercised in the matter. There is unity instead of distraction; harmony instead of discord. Besides, think of the difference on one's nerves!

It is said, also, that treating rooms that open into one another in a gradually ascending scale of lightness of color tends to make a house look larger; e.g., to have the hall in a rich foliage combination of browns and olive-green, the living-room in lighter tones of green and tan with touches of yellow, and the dining-room in dull buff-provided the rooms open into one another. However, this does not matter nearly so much as that the colors do not quarrel.

Before closing it may be opportune to say that, if one wishes to assume the expense, there are Japanese grass cloths, burlaps and other materials to choose from. These last well and may be retinted when they fade, so that in the end the expense is less than the initial cost may indicate. Often they are used as wainscotting, with paper covering the rest of the wall.

## DATE BREAD.

E. J. F., Russell Co., Ont., kindly sends the following recipe for Date Bread: 1 egg, 1 cup sugar, 11 cups sweet milk, 4 cups Five Roses flour, 1 teaspoon salt, 2 teaspoons soda, 1 lb. stoned dates, 1 cup chopped walnuts. Put in buttered loaf-pan, let rise 1 hour, then bake in a moderate oven.

I presume the "2 teaspoons soda" J. F. ? nowada

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## A Garden Scrap-Bag

UNCOVERING BULB BEDS. As the weather grows warmer uncover the bulb and perennial root beds gradually. Do not strip them of all their winter protection at once. 6.0

#### POPPIES.

Sow poppies as soon as the frost is out of the ground. They do not bear transplanting well, and will have to be thinned out a little as they grow. Shirley, Iceland, and Californian popples are very choice, and may be kept blooming for a long time if not permitted to go to seed. 0 0

FERTILIZING SHRUBS AND PEREN-NIALS.

Work in a top-dressing of very old, well-rotted manure about your perenmial roots and shrubs. Never use new, raw manure on either flowers or vegetables, as it is likely to burn the tender plantlets. . .

#### RHUBARB AND ASPARAGUS.

Rhubarb and asparagus beds should be worked up and kept free from weeds. A little salt sprinkled over the beds of both, if done immediately will help the growth. 0 0

#### AIRING THE HOT-BED.

Don't forget that the plants in the hot-bed need ventilation, abundantly on warm days, enough of it to keep them from becoming weak and sprawling. As soon as ready they should be transplanted to a cold frame and left there until it is time to transplant them again into the open. If properly handled they should be sturdy, with stout stems and healthy, richly-colored leaves. Plants with weak stems and sickly, pale green leaves usually die on the final transplanting.

## CARPET PLANTING.

To take away the bare look of newlyet shrubbery borders, "carpet" the ground beneath with forget-me-nots, pansies, phlox subulata (moss pink), alyssum, etc.

## COLOR EFFECTS.

Plan for harmonious color effects in Don't have purple, blue, the garden. pink, scarlet and yellow all together, creaming at one another. Mass your coloring, as much as possible, and use plenty of white to separate and prevent clashes. For this purpose white June lilies, white asters, white phlox, white candytuft, sweet alyssum, gypsophila, Shasta daisies, white gas plant, white iris, white peonies, etc., are excellent.

## A MINGLING OF SWEET ODORS.

Provide for some plants of sweet odors in your garden. They endear themselves both by their beauty and their perfume. Narcissus, lilies of the valley, tuberoses, roses, lemon lily, Madonna lily, mignonette, stocks, nicotiana and heliotrope may be mentioned, with the dear old-'sweet Mary,' "old man," thyme, sweet marjoram and lavender.

#### 0.0 PLANTS FOR CUTTING.

All flowers are beautiful: nevertheless some are much more effective for house decoration than others. Asters, gaillardla, nasturtiums, sweet peas, roses, coreopsis are especially good for arrangement in loose masses by themcolves, while baby's breath and the curious smoke-tree flower are excellent for mixing with such dainty blossoms as Shirley or Iceland poppies, sweet peas, etc. Iris, sprays of blossomed shrubbery, hollyhocks, larkspur, golden glow, sunflowers, even zinnias in rich colorings, are all good for house decoration, but they must be arranged with an artist's touch, and with especial regard to the vessels which contain them.

#### 0 0 SWEET ALYSSUM.

Sweet alyssum is a little flower, not showy in itself, but invaluable to any garden if properly planted and cared for. Always so the seed in masses (it is

fine for borders) about a foot from the edge of the bed, and as it grows cut it back for the first few weeks, until the plants are very bushy, then leave it to grow as it will, and you will have a bank of snowy bloom until snow sets in. Verbenas are fine also for late blooming, as frost has but little effect on them. 0 0

#### NATIVE PLANTS.

We are inclined to slight our native plants and shrubs as unworthy of a place in the garden or about the lawn, but many folk who are interested in our wild plant-life find that they are very effective, provided one can provide them with a deep, mellow soil. A lawn with a little grove of maple trees at the northern side of it; a mass of dogberry and beautiful Juneberry trees cutting off an unattractive view here, a hedge of red elderberry dividing off a driveway there; wild roses, ferns, iris, cardinal eflowers, meadowrue and violets in a damp corner; trilliums, hepaticas, Solomon's seal, twisted stalk, columbine, bishop's cap, foam flower, phlox, pigeon berry, Indian turnip, and crowfoot under the maple trees; a stone fence covered with wild grape, wild clematis and bittersweet :- can't you see the picture? And could you ever again despise our native trees, shrubs and flowers as adjuncts of the lawn and garden? But if you decide upon a 'native garden,' keep to it. It would be a shame to rifle the woods of these precious treasures, which are disappearing all too soon before the ravages of ploughshare and cattle, only to plough them all up from the garden within a

## The New Public Health.

The Farmer's Advocate" Bureau of Public Health Information.

QUESTIONS, ANSWERS, AND COM-MENTS.

Conducted by the Institute of 'Public Health.-The Public Health Faculty of Western University, London, Ontario.)

Established and maintained by the Ontario Provincial Government.

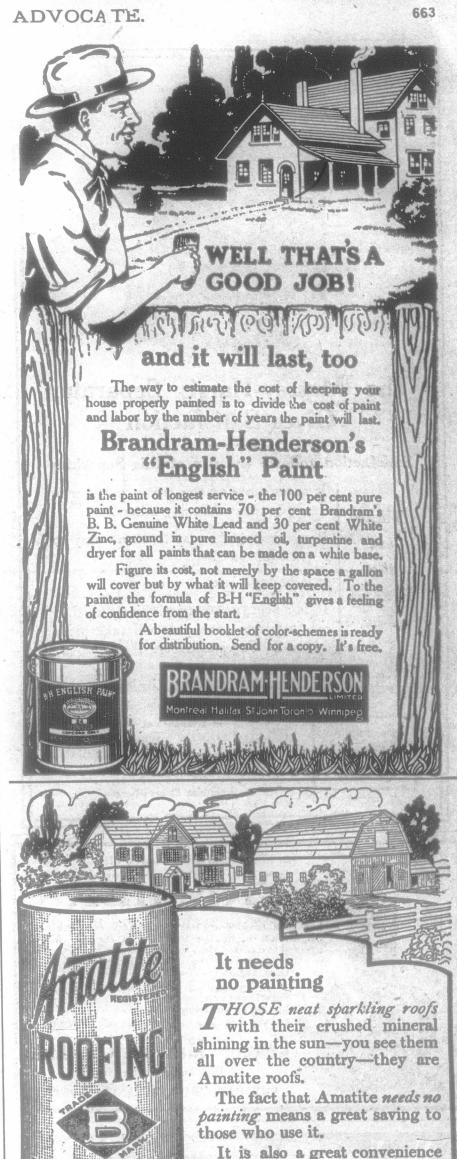
[Questions should be addressed: "New Public Health, care of 'The Farmer's Advocate,' London, Ont." Private questions, accompanied by a stamped, selfaddressed envelope, will receive private answers. Medical treatment or diagnosis for individual cases cannot be prescribed.]

#### Chronic Appendicitis; Acute Indigestion.

Ques.-(a) In your opinion is there such a thing as chronic appendicitis, or a chronic soreness in the appendix? (b) Would you please give a home remedy or relief for acute indigestion? (c) Could you kindly give some assistance to one troubled with fermentation of the food in stomach and intestines? I have tried to diet, but it seems all the same no matter what I eat; also, I have tried doing without a meal at different times and eating very little, though not suffering acutely now. Sometimes there is considerable soreness or tenderness to the touch. I have been troubled for several years with it. (Very much troubled with gas.) SUBSCRIBER'S WIFE.

Ans.-(a) Yes. (b) Acute indigestion of the simplest form is most quickly relieved by vomiting (fingers down the throat or hot mustard-and-water); follow with a laxative. The trouble with all "home remedies" lies in their application to the wrong person, or in the wrong case, or at the wrong time. Moreover, one should always look for the cause; not merely relieve the symptoms, and then remove the cause.

(c) All I can advise honestly is a thorough examination by an expert physician. Such conditions may arise from so many different causes that it is hopeless, as well as dishonest, to try to "treat by mail." For instance, sometimes washing out the stomach is all that is required. On the other hand,



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the stomach may have to be removed, if cancer is the cause. Between these two extremes all sorts of possibilities lie. The Institute makes examinations of stomach contents to aid physicians their diagnosis.

## More About Foods.

(Continued.)

FEEDING HUMANS TO MAKE MUSCLE

Remembering previous articles, that proteins, like lean meat, are necessary to repair and growth of muscle, nerve, skin, bone, liver, and practically everything in the body except fat, it is necessary to distinguish between gaining weight by increasing muscle and bone, etc.; and gaining weight by merely increasing the fat. Children do the former as they grow up, and athletes as they train; so do people, not used to hard physical work, if they turn in and "harden up" during a season on the farm or elsewhere requiring muscle; so do people when recovering from any "wasting" attack, in which their muscles, etc., have really become smaller in weight and bulk. Fat and carbohydrates alone (sugar and starch) would not do for this purpose at all. It is not do for this purpose at all. It is true that "soft" people, who take up heavy, muscular work, may lose weight at first, because they are burning up reserve stores of fat; but they gain weight also, in muscle: whether their total weight remains the same or increases or diminishes depends on how much and how fast their fat reduces and how much and how fast the muscle increases.

FEEDING HUMANS TO MAKE FAT.

Sugar is the real muscle-fuel, and is greatly needed by all hard workers; the starch of the foods goes into the blood as sugar: the sugar of the food, of course, does so, and even much of the protein forms sugar as well, to be burned up like the rest. (You will remember fats and carbohydrates are fuel only, but proteins are both fuel and repair material.) But the moment the total work done by the body falls off much, the diet remaining as before, the sugar obtained from the foods tends to be stored as fat; and the fat obtained as fat from the food is stored with it. Gaining weight in muscle means hard work and heavy eating, especially proteins; gaining weight in fat means light work and heavy eating, especially carbohydrates. No wonder women without much real muscular work to do grow fat on cakes and candy and pies and other combinations of starch and sugar!

#### FEEDING HUMANS TO REDUCE WEIGHT.

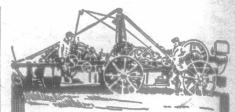
Very few healthy humans ever want to reduce their muscle or bone; but very many healthy ones do want to reduce their fat. They diet, and find, to their dismay, that the more they diet, the fatter they become! Then they take to medicines or other foolishness, not remembering that any medicine strong enough to interfere seriously with the natural operation of a healthy body must do it, as a rule, by injuring some normal process: a good deal like slowing the operation of a thresher, not by putting less fuel under the boiler, but by pouring sand into the bearings!

The secret of dieting to get rid of fat is this, and this only,-keep the outgo of the body above the intake; in other words, burn up a little more fuel than you receive in food; i. e., use up your own fat for fuel, until it is gone. Now, this takes time and patience and perseverence and thought and self-control; a good deal more of each than most people will give to it.

## FAILURES IN DIETING.

To lose excessive fat, while still in health, requires that the total work your body does, measured in calories (see previous articles), shall be a little more than the calories in the food. Now, most fat people rather like eating, especially sugar: and being fat, they become lazy, too; not necessarily lazy in mind or tongue or about their own house or business, but lazy in muscle.

Then, when they make up their minds to diet, they want to get it over quickly, and cut their food down very much all at once; this makes them feel weak; they exercise less than ever. Then they eat their heads off to relieve their ravenous appetites at night, and sorrowfully do without breakfast to make up next



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Red Clover No. 1, \$12.00 Bush.
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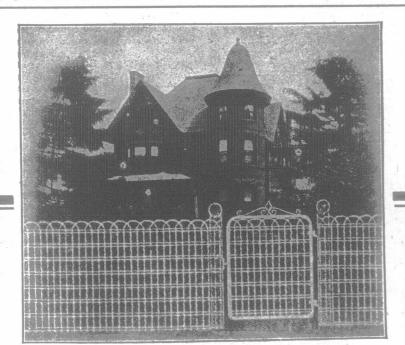
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morning! Perhaps wiser ones recognize that exercise is needed; but the exercise makes them hungrier than usual, as of course it should; and when they eat, to make up what is lost in exercise, they eat too much, and actually gain.

BRINGING UP COAL FROM THE CELLAR.

Most bodies groan and grunt over burning up their own fat, after so carefully storing it away. They prefer to use the sugar they can get fresh, and fresh from their food at every meal. If the coal is stored away in the cellar, and wood is delivered at the kitchen door every day, most people, I suppose, would prefer to use the daily deliveries, right to hand, of quick-burning fuel, rather than go to the cellar, open the bin doors, and lug the slow - burning coal up-stairs to the kitchen stove. At all events, this is the way the body feels about it.

THE PROPER WAY.

To reduce fat, exercise muscular exercise—is needed, not necessarily very hard exercise, but exercise, in excess of that justified by the food taken. Very little exercise will do if very little food is taken; very much is needed if the food taken is excessive; but little or much, the exercise must keep "one jump ahead" of the food.

WAYS AND MEANS.

Suppose you are determined to cut your fat down and are willing to take real pains about it. Weigh yourself stripped, or in a definite set of clothes, with empty pockets, on a reliable scale.

Then weigh the food in your ordinary meals, bread, meat, vegetables, etc., separately, and so get a real idea of how much you eat per day. (Many people may find it easier to count so many slices of bread, so many helps of butter, so many chops, so many potatoes, etc., but this is not so accurate, although, perhaps, accurate enough.) Figure the average calories you have been taking (See table January 15th, 1914.)

Then make up your mind which you will do; eat just the same amount, but exercise more and more until your weight comes down: or (b) exercise just the same, but cut your food down; or (c) both increase exercise and reduce diet. Then, whichever you choose to do, do it! Not spasmodically, or a day at a time, or when you feel like it, but right straight along for three months.

HELPS TO THE WAYWARD.

Remember that your stomach may be so used to bulky meals that you really feel uncomfortably empty on small ones: you may placate your stomach, and "balance up" in bulk, by eating coarse, branny foods, and foods very high in water; guard against taking concentrated nd fats and starches: look over the list of foods already given (January 15, 1914), and pick things like oatmeal and macaroni, that have low fuel value, but good bulk. (It takes about six pounds of cooked oatmeal to equal about one pound of good candy in fuel. Notice string beans, green; ten pounds about equal one pound of sugar, but notice, too, that one pound of navy beans dry are equal to a pound and a half of beefsteak, very nearly.) Remember, in using this table, that you are aiming to cut down the fuel you give your body in your meals, so that your body will be forced to burn up its own fuel, your fat. But don't go at it so hard that you collapse in a week, and have to stay in bed a month to recover. Be content to take off a pound or two a week, not fifty pounds a day!

A pound of fat represents 4,200 calories, and to burn this up in a week you must average 600 calories a day less food than you are taking now if your exercise remains the same, cr you must increase your output of energy by the equivalent of 600 calories if your food remains the same; in other words, if your average diet before you begin reducing is 3,000 calories a day, you must cut it to 2,400, keeping up your ordinary exercise; or you must much increase the exercise you ordinarily take. Violent exercise suddenly entered upon by people who have been living rather sedentary lives, may easily result in a great deal of trouble, and it is much better to both cut the diet somewhat and increase the exercise somewhat, working gradually to the point where you begin to get a definite reduction in weight. It must be remembered that

## Bourinot's Canadian Manual

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On the Procedure at meetings of municipal councils, shareholders and directors of companies, synods, conventions, societies and public bodies generally, with an introductory review of the rules and usages of Parliament that govern public assemblies in Canada.

This book gives in simple and plainly understood language the rules for the proper conduct of meetings. It is of great value to all who are interested in the methodical progress of business and who wish to make themselves conversant with the principles, rules and usages that should guide the proceedings of public assemblies of all kinds. Any person occupying a public position should have an wish to make themselves conversant with the principles, rules and usages that should guide the proceedings of public assemblies of all kinds. Any person occupying a public position should have an intelligent understanding of the management of public meetings.

The book contains 444 pages, is strongly bound in half-leather, and will be sent postpaid on receipt of \$3.75, or \$3 if cloth binding preferred.

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MAIL CONTRACT

SEALED TENDERS addressed to the Postmaster General will be received at Ottawa until noon, on Friday, the 8th day of May, 1914, for the conveyance of His Majesty's Mails on a proposed Contract for four years, six times per week each way, between Big Point and Chatham (Chatham No. 1 Rural Route) from the 1st day of July, 1914, next.

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Printed notices containing further informatiom as to conditions of proposed Contract may be seen and blank forms of Tender may be obtained at the Post Offices of Big Point, Dubuque, Paincourt and Chatham, and at the Office of the Post Office In-spector at London.

Post Office Department, Mail Service Branch, Ottawa, 26th March, 1914.

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Baby

Order your baby chicks now from our splendid laying strain of single-comb White Leghorns.

UTILITY POULTRY FARM T. G. Delamere, Prop. STRATFORD. ONT,

Please mention "The Farmer's Advocate."

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Condensed advertisements will be inserted under this heading at three cents per word each insertion such initial counts for one word and figures for two words. Names and addresses are counted. Cash must always accompany the order for any advertisement under this heading. Parties having said pure-bred poultry and eggs for sale will find polimity of customers by using our advertising columns. No advertisements inserted for less than 50 cents.

A MERICA'S greatest laying strain of White Wyandottes; winners at the principal egg-laying competitions; hatching eggs two, three and four dollars per setting. McLeod Bros., Beulah Farm, Stoney Creek, Ont.

A NCONAS—Hen hatchen, free range, healthy, hardy, vigorous, develop early, lay at 4½ months. Eggs, \$1.00 per 15; \$4.00 per 100. W. E. Williams, Clandeboye, Ont.

BARRED Rocks, White Leghorns; heavy layers; fifteen eggs 75c.; hundred \$3.90. E. Nourse, Port Credit, Ont.

BARRED Rocks—Winter egg machines—Eggs from special mating of my choicest purebred birds \$1.50 per fifteen. Earl Bedal, Box C, Brighton, Ont.

BUFF Orpingtons—First pen all prizewinners. Second pen headed by first cock bird, Brant-ford; \$2 and \$1.25 per 15. G. W. Hawkins, Plattsville, Ont.

BRED-TO-LAY Barred Rocks—Eggs for hatch-\$1.25 per setting or \$4 100. W. R. N. Sharpe, Ida, Ont.

BARRED Rock and White Leghorn—All imported stock; bred for heavy winter layers; eggs \$1 a setting and \$5 a 100. Write for photo of finest plant in Canada. A. C. Baeker, owner, Huron Specialty Farm, Brussels, Ont.

BARRED Rocks — Bred-to-lay; daily laying average this winter over 41%; eggs for sale.

H. Keith Revell, Goderich, Ont.

BARRED Rocks, R. I. Reds, White Wyandottes, S. C. Brown and White Leghorns. Eggs \$1 per 15. Wm. Bunn, Denfield, Ont.

BARRED Rocks, great layers nicely barred—eggs, fifteen, dollar; hundred, four dollars, Henry Hartley, Norwich, Ont.

BARRED Rock eggs, choice utility stock; win-ter layers; dollar per fifteen: Sam Cordingly, Liegar, Ont.

BIG MONEY in Indian Runner ducks from best American and English strains; steady winter layers of pure white eggs \$5.00 per setting from both pens. Mrs. E. C. Cattley, Weston, Ontario,

EGGS—Thirty varieties poultry, ducks, bants, dollar twenty-five per thirteen, seven per hundred; geese, turkeys three per setting; won forty-four firsts, thirty-two seconds, thirty thirds, fifteen special prizes at three largest shows in Canada 1913, Canadian National, National Live Stock Toronto, Guelph Winter Fair, over 5000 entries each show; eighteen years breeder, exhibitor; eighty per cent hatch or duplicated half price. Luxton & Son, Mt. Forest, Ont.

EGGS from my exhibition Barred Rocks should improve your flock. Only \$3 per setting. A few choice cockerels \$3 each. J. A. Betzner, Aldershot, Ont.

EGGS for setting—Single-combed White Leg-horn eggs fifty cents. Jumbo White Rocks sixty cents per setting; pure stock. G. W. Graydon, 419 Talbot St., London.

FOR SALE reasonably—Eggs from my bred-to-lay single-combed White Leghorns. John M. Ritchle, Wemyss, R. M. D. No. 1, Ont.

FOR SALE-Single-comb Brown Leghorn eggs, and grand layers; price \$1 per 15, or \$2 for 45. W. C. Shearer, Bright, Ont.

HATCHING eggs from standard-bred fowls— Exhibition Black Orpingtons \$3.00 per fifteen, Utility Black Orpingtons one-fifty, Barred Rocks one-fifty, Brown Leghorns, one-fifty; unfertiles replaced free. R. J. Parkinson, Granton, Ont.

HIGH-CLASS Barred Rocks—Barred to the skin; great laying strain; very large fowl; a hen two years old weighed 13 pounds; cockerels eight months old weigh nine pounds. Eggs for hatching, \$1 per 15. R. A. Cowan, Lisgar, Ont.

LIGHT Brahma eggs \$1.30 per 15. R. W. Stevens, Lambeth, Ont.

MAMMOTH Bronze Turkeys, fine heavy birds bred from prize stock. R. G. Rose, Glanworth, Ont.

MY Barred Rocks won first at Toronto, London and Hamilton. Cockerels and hatching eggs for sale. Leslie Kerns, Freeman, Ont. PURE-BRED Buff Orpington pullets, cockerels and eggs. James McGregor, Caledonia, Ont.

PURE-BRED Barred Rocks—Eggs for hatching one dollar per fifteen. Exhibition matings, three dollurs per fifteen. Jas. E. Metcalfe, R. R. No. 2, Wilkerton, Ont.

PURE-BRED, prizewinning White Wyandottes hatching eggs \$2 for fifteen. Erland S Betzner, West Flamboro, Ont.

PRIZEWINNING stock—Rub I: Islan I Reds and White Wyan lottes. Special stating eggs \$1.50 per 15. H. H. Dickson, Pakenham, Out.

PUREBRED Barred Rock and R. I. Red eggs, \$1.50 per fifteen. F. H. Young, Box 153, Caledonia, Ont.

London

Canadian

Winnipeg

ROSE-COMB Rhole Island Reds -Prizewinning stock; good rivers. Eggs \$2 per fifteen. ( Cuthbort, Alton, Ont.

Cuthbert, Alton, Ont.

ROSE COMB Brown Leghorns, winter egg machines. Eggs \$2, \$3 setting. Stock for sale.
C. Henning, Hanover, Ont.

SILVER-LACED Wyandottes—Eggs per setting \$3 and \$2 from May, 1913; Guelph winners.
Frank McDernott, Tavistock, Ont.

S. C. White Leghorns Wyckoff strain; none better.

S. Figs for hatching, five dollars per hundred;
one dollar for fiftee. Chas. Bartlett. Arkonn. Ont.

SINGLE-COMB White Leghorn Eggs that hatch:
dollar setting: five dollars hundred. E. W.

Burt, Paris, Ont.

SINGLE COMB Black Minorca eggs. Prise-winners, \$1.50 a setting. A. Murphy, Mount Forest, Ont.

TRIO Silver Leghorns, \$3.50; Partridge Cochin Cock, \$2; pair White Favorolles, \$7; trio Black Cochins, winners, \$10. A. J. George, 52 Clarence St., London, Ont

NFERTILE Eggs replaced free and safe de livery guaranteed. Eggs from high standard ared-to-lay Barred Rocks, White Wyandottes, Buff Leghorns, \$1.25 fifteen; large vigorous stock; extra heavy layers; pullets laying at 5 months old. Write for free catalogue which gives full particulars. Satisfaction or money refunded. Charles Watson, Londesboro, Ont. Watson, Londesboro, Ont.

WHITE Wyandottes—Champions eight years at New York State Fair. Big, vigorous cockerels, \$2, \$3 and \$5 each. Pullets, \$2 and \$3. Eggs, \$3 per setting. Send for free catalogue. John S. Martin, Drawer R. Port Dover, Ont.

WHITE Wyandotte eggs for hatching from good, vigorous stock. Special matings, \$3 per fifteen; utility mating, \$2 per fifteen. W. T. ofteen; utility matin Ellis, Walkerton, Ont.

WHITE Wyandotte eggs from strong hardy stock, bred to win in the laying pen and show room and on the table, \$2 per sitting. This a the opportunity you have been clocking for. W. B. Powell, Galt, Ontario.

WHITE Wyandotte eggs from grand pen, bred-to-lay prize-winning stock, \$1.25 per fifteen. Mrs. W. G. Buttery, Route 7, Strathroy, Ont.

WHITE Wyandotte eggs from my Championship male and other matings; heavy laying strain. H. Rundle, Brighton, Ont. WHITE Rock eggs for hatching, bred direct from Rochester, N. Y. cup winners. Her man Claus, Shannonville, Ont.

WHITE Wyandottes', R. C. Reds', White Rocks' and Buff Leghorns' eggs \$2 per 15. S. C. White Leghorn baby chicks 10c. each. Indian Runner Duck eggs \$1.50 per 15. C. S. Wilson, Tambling's Corners, London, Ont.

WHITE Orpington eggs—Fine utility stock winter layers; \$1.50 per 15. M. Darling Otterville, Ont.

WHITE Wyandottes', R. C. Reds', White Rocks and Buff Leghorns' eggs \$2 per 15. S. C. White Leghorn eggs \$1 per 15. Indian Runner Duck eggs \$1.50 per 15. C. S. Wilson, Tambling's

Corners, London, Ont.

Lochabar POULTRY YARDS is prepared to fill orders for eggs from selected birds of the following varieties: Barred P. Rock eggs, \$1 per 15; M. Bronze turkey eggs, 40c. each, \$3.50 per nine. D. A. GRAHAM, R. R. No. 3, Wvoming, Ont.

Wanted

A carload of Tamworth
Gilts and young bred
sows. Give price per
pound and full description. E. B. TRAHERN,
Clarksville, Tenn., U.S.A.



Advertisements will be inserted under this head-ag, such as Farm Properties, Help and Situations

Wanted and Pet Stock.

TERMS—Three cents per word each insertion.
Sach initial counts for one word and figures is two words. Names and addresses are counted.
Sash must always accompany the order. No advertisement inserted for less than 50 cents.

FARM FOR SALE. — Lot 31, Concession 1. Township of Osborne, County of Huron, Situated on the London Road between Exeter and Hensall, contains 100 acres more or less, 90 acres cleared and under cultivation, % acre apple orchard and 9 acres thin bush. Buildings include one-storey frame dwelling on brick foundation. chard and 9 acres thin bush. Buildings include one-storey frame dwelling on brick foundation, good-stable and barn and outbuildings. About 10 acres of fall wheat. This farm is excellently situated and is one of the best in the county. It is on a good road and is convenient to school and market. Terms: Ten per cent. down; balance in 30 days without interest. Apply for full information to The Canada Trust Company, London, Ont., the Administrator, or to Dickson & Carling, Exeter, Ont., the Solicitor for the Administrator. Ont., the Solicitor for the Administrator.

FARM FOR SALE. 50 acres near Grimsby, Ont. mostly well timbered, a bargain for a quick sale, suitable land for fruit. Address Beamsville,

Box 6.

I HAVE a large number of housekeepers and good domestics requiring advanced passage to Canada. I personally guarantee each person remaining in situation until fare repaid. Hughes, 3 New Street, Birmingham, England.

SEND for wholesale catalogue to Lancashire's Cheapest Drapery Warehouse, and learn how to increase income. Make money selling British goods, tablings, tewellings, ready-mades, dress materials, ladies' overalls, pinafore muelins. Cochrane's Warehouse, Victoria Bridge, Manshester, England.

WANTED—On hundred-acre farm, respectable single man by year; kind with horses and cows; good milker and plowman (abstainer). State wages to Box 131, Milton, Ont.

WANTED—Sober, experienced single man by W the year or seven months; good horseman and plowman; Scotchman preferred; state wages. Dan. K. McRae, Glencoe, Ont., R. R. No. 3.

WANTED—Management of stock farm, or on shares, by Ayrshire farmer's son, 40, married, three children; life experienced on mixed dairy farms; life abstainer. Apply "Young," Meredith Farm, Tambling's Corner, London, Ont.

WANTED—Persons to grow mushrooms for us at home. From \$15 per week upwards can be made by using waste space in yards or gardens. Illustrated booklet sent free. Address, Montreal Supply Company Montreal Supply Company. Montreal.

WANTED—A few competent farm hands of good references beginning April 1st, for 9 or 12 months, on a 1700 acre farm near Chatham, Ontario. Good board, good wages, and good management assured. Address: Bruce F. Bradley, Jeannettis Creek, Chatham, phone 962 r 1-3.

very heavy exercise tends to increase muscular weight, although the fat may be taken off.

All the above illustrations and rules are based upon the average healthy adult; the directions are only of the most general character, and must be worked out for each individual with pains and persistence. H. W. HILL

(To be continued.)

## The Windrow

"A garden should be a kind of out door dwelling-place, and as free from any competitive eagerness as the house of the well-bred. The successful gardener is he who can enjoy his own garden when he is alone in it as simply as if it were a spring meadow round his house. He may have done what he will with nature; but all his labors will seem like nature to him when he rests from them, and he will forget that his flowers owe their wellbeing to his skill. As for other gardens there may be many more beautiful; and he is glad of it. as a poet is glad of all the poetry in the world. But his own garden is not to be compared with them any more than his own wife with other women It is there to be enjoyed for itself, with out any pride of possession, and as place of rest from all labors, even from those that have made it beautiful.

-The Times, London, Eng.

A letter from Mary Queen of Scote to the Laird of Weym, dated Aug. 31, 1566, was recently sold at Sotheby's for £300. A letter written by Mozart sold for £351, and a poem of 49 lines in the writing of Robert Burns for £125.

A large number of well-known authors were recently invited by the New York Times to give the name of the best short story ever written. The great majority voted for one or another of Robert Louis Stevenson's stories, thus testifying to the continued popularity of the great "R. L. S." Sir Conan Dayle gave as his choice, "The Pavilion on the Links."

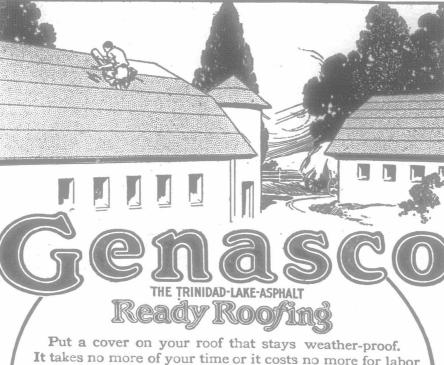
A writer in the Revue Scientifique points out that indolence or "laziness" is a symptom of a number of diseases, both physical and mental, including asthma, tuberculosis, diabetes, and failure of the glands to do their work properly. As a consequence many worker and many a child has been blamed for laziness when he was really in need of medical treatment.

It has been estimated that in the interior valleys of Alaska there are nearly 100,000 square miles of land available for farming and grazing, and it is expected that this large area will be taken advantage of for these purposes as soon as transportation facilities have been effected. Since New Years the United States Congress has passed bills authorizing the government to build and operate 1,000 miles of rall road in Alaska. A proposal for the lease of Alaskan coal lands is also under consideration, the income from royalties and rentals to form a fund for the development of the country.

Sun-Laths, exposure of the naked body to the sun's rays, under careful medical direction, has then found very helpful in curing tube cu.s's of the bones, joints and ganglions, also in corrain et al diseases, including trachoma and cojunctive tuberculosis. The name "helfotherap," has been applied to the treatment, which, according to the Presse Medicale, originated in the Lyonnaise school, where it was devised by Poncet. Among others who have used it are Dr. Rollier, a Swiss physician, who benefited his patients by solar rays on snow-covered peaks; Dr. Oelnitz, of Nice, who has found it useful in cases of tubercular peritonitis; and Dr. Emmet, of Philadelphia, who used it in cases of acutemuscular rheumatism.

Cecil Rhodes treated sovereigns like equals, says Mr. Gordon le Sueur in hie recent book on the great South African magnate. When Queen Victoria, who admired him very much, taxed him with being a woman-hater, he answered blunt-"How could I possibly hate a sea. to which your Majesty belongs?" To the immense amusement of the German Emperor, he one day looked at the

Evans, Coleman & Evans, Ltd.



It takes no more of your time or it costs no more for labor to lay enduring Genasco Roofing than you'd spend on inferior roofing whose service is short-lived.

Genasco is waterproofed through-and-through with 'Nature's everlasting waterproofer".

The natural oils of Trinidad Lake asphalt give Genasco life and lasting resistance to sun, rain, wind, snow, heat, cold, alkalis, and acids.

It means economy from beginning to end.

Ask your dealer for Genasco-smooth or mineral surface; several weights.

Look for the trademark. The KANT-LEAK KLEET makes seams watertight without cement and prevents nail-leaks. Write us for the Good

Roof Guide Book and samples. Free,

The Barber Asphalt Paving Company Largest producers in the world of asphalt and ready roofing



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clock, suddenly got up, and, without the fat may waiting to be dismissed as Court etiquette demanded, held out his hand and ns and rules said: "Well, good-bye; I've got to go age healthy now, as I have some people coming to y of the most dinner." The Turkish Court are alt be worked ways expecting concealed bombs and th pains and daggers and firearms, consequently no . W. HILL. one is allowed into the Sublime presence with an outer robe. Rhodes, who came to see the Sultan of Turkey, had only an ordinary lounge suit on, and refused row.

to remove his overcoat. This was objected to, for the reason above stated. "All right," said Rhodes, "I won't go in at all." This would never do, so Rhodes was reluctantly allowed to go in as he was.

In our school days we learned that water cover three-fourths of the earth's surface, and land the other fourth. The statement dates back to a time when very little was known about the distribution of land and water in the polar regions, and needs to be considerably revised in the light of recent discoveries. Taking account of the results of the latest polar expeditions, Professor Wagner estimates that the ratio between land and water is as 1 to 2.42-in other words, that about three-sevenths of the earth's surface is land, and the rest water. This estimate assumes that only 10 per cent. of the surface north of latitude 80 degrees north is land- an assumption that may be considerably modified by the forthcoming explorations of the great unknown region north of British America and Eastern Siberia.

### News of the Week

On March 26th 2,000 "waterways delegates" waited upon the Premier in Ottawa to urge the necessity for immediately deepening the St. Lawrence to accommodate ocean vessels, also to ask that the projected 6,400 miles of radial lines in Ontario should receive the same Government subsidy that other railways in the Dominion receive.

President Wilson has won in the first fight in regard to the Panama tolls issue, now being threshed out in Wash-

. . . . .

The most furious battle yet fought in Mexico was carried on during four days of last week. As a result practically all of Torreon is in the hands of Gen. Villa's forces.

To meet the situation caused by the resignation of many army officers who resigned last week under the mistaken impression that they were to be actually called upon to fight Ulster, the British Army Council has issued a new army order providing that absolute obedience of officers and men shall be d> manded from all ranks. A notable result of the crisis is a marked drawing together of Labor and Liberalism.

At a meeting of the Poplar Borough Council on March 27th scores of bombs filled with evil-smelling chemicals were exploded by suffragettes, who were ejected after a riotous fight with the police, the women fighting with bottles and bludgeons.

. . . . .

30,000 peasants recently made a demonstration before the Royal Palace at Stockholm to protest against the prolongation of military service, and the imposition of new war taxes without consent of the people.

# The Beaver Circle

#### Our Senior Beavers.

Dar Beavers,—I hope some of you are not becoming very very discouraged because your letters have not appeared in the Circle before this. You see all the Beavers have been busy of late-"spring fever" I suppose—writing letters for the Circle. Of course, all the letters cannot go in at once, and some will have to wait quite a great while.

Then there were the competition letters,—they had to go in. Last time we gave you the girls' letters about "Boys;" this time we give you the boys' letters about "Girls." The girls,

# West Flour

The hard wheat flour that is guaranteed for bread

It makes great, big bulging loaves of the lightest, whitest and most wholesome bread.

# Give Me a Chance to Prove My FLOUR

We want to make "Cream of the West" Flour better known in every locality in Ontario. And with this end in view we offer the following



## Special Prices Direct to the Farmer

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FLOURS Per	98-lb.	FEEDS Per 100-lb.
Cream of the West Flour (for bread).  Queen City Flour (blended for all purposes).  Monarch Flour (makes delicious pastry).  CEREALS  Cream of the West Wheatlets (per 6-lb. bag).	2.50 2.50 2.50 .25 2.50	"Bullrush" Bran
Family Cornmeal (per 98-lb. bag)	2.25	Chopped Oats

Prices on Ton Lots: We cannot make any reduction on above prices, even if you purchase five or ten tons. The only reduction from the above prices would be on carload orders. Then there would be a reduction in the freight charges (a carload contains 400 bags).

Terms Cash With Order: Orders may be assorted as desired. On shipments up to five bags, buyer pays freight charges. On shipments over five bags we will prepay freight to any station in Ontario, east of Sudbury and south of North Bay. West of Sudbury add to above prices 10 cents per bag. To points on T. & N. O. line, add 15 cents per bag to cover extra freight charges. Make remittance by express or post office money order, payable at par at Toronto. Prices are subject to market changes.

### Your Choice of Any One of These Books---Free to Everyone Who Buys Three Bags of Flour you choose, be sure to enclose 10

The Dominion Cook Book has no less than 1,000 recipes, in addition to a large medical department. The books of Ralph Connor, Marian Keith and J. J. Bell are full of absorbing interest from cover to cover. You want every one of these good books in your library. Every time you order at least three bags of flour (any brand) you may choose any one of these books free. If you order six bags you may choose two books free, and so on. For each book Dominion Cook Book.

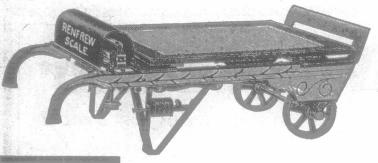
Books by Ralph Connor: Black Rock Sky Pilot Man From Glengarry Glengarry School Days The Prospector The Foreigner

Books by Marian Keith: **Duncan Polite** Silver Maple Treasure Valley 'Lisbeth of the Dale

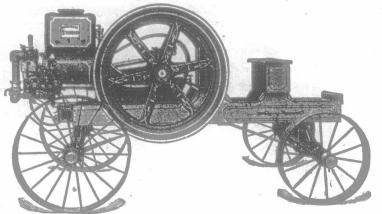
> Whither Thou Goest By J. J. Bell

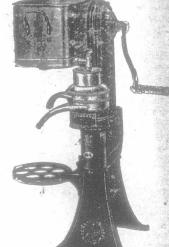
cents to pay the postage. Bear in mind, that if you order up to five (5) bags we will pay the freight on the flour to any station in Ontario, east of Sudbury and south of North Bay (see terms above). To get a book, at least 3 bags must be flour-the other two bags may be flour, or any other product mentioned in the list printed above. Add 10 cents to your remittance to cover postage and wrapping of each book.

The Campbell Flour Mills Company, Limited [West] Toronto, Ontario



**Every Modern Farmer Needs** These Labor- and Money-Savers





# Renfrew Standard Quality in all Three

For weighing cattle, horses, hogs, sheep, feed, milk, butter, grain, groceries, etc., you need The Renfrew Handy Two-Wheel Truck Scale. Weighs from 1 lb. to 2,000 lbs. Weighs accurately on even or uneven ground. Government Inspector's Certificate attached. Strong, durable, yet not heavy. Built especially for use on the farm. Write for our Scale Booklet and learn how this scale has paid for itself on the farm in less than three months. Sold on a Special Easy Payment Plan.

The Renfrew Standard Gasoline Engine is known as "the engine that starts without cranking." Runs so smoothly and so perfectly balanced it needs no wooden blocks under the wheels to prevent truck from crawling. Remarkable simplicity of construction makes it easy for a boy or girl to understand and run one. Has Governor of Fly-Ball Steam Engine Type. Very economical on gasoline. All styles and sizes from  $2\frac{1}{2}$  to 60 h.-p. Write for our Engine Booklet.

Every modern farmer has heard about the Standard Cream Separator—the separator that holds those remarkable closeskimming records at Government Dairy Schools. But every one doesn't know why it skims so close-loses but one-tenth of a pound of butter fat in every 1,000 lbs. of milk skimmed. The reasons are given in our new separator booklet, which also explains the self-oiling system, the low supply can, high-crank shaft, sanitary bowl, helicle gears, remarkable new-idea neck bearing, etc. Write for a copy.

# The Renfrew Machinery Co., Limited, Head Office Renfrew, Ontario

Branches at Sussex, N. B.; Saskatoon, Sask.

Agencies Almost Everywhere in Canada.

you will remember, took their subject very seriously. But the boys,-not so ! Practically they would have nothing to do with so trivial a subject as "Girls." All but four held up their noses superciliously and passed by on the other side, and the four who did condescend treated the matter, for the most part, jocularly. Evidently girls are a great joke to boys.

But, to become serious, as only four letters were received, these four must take first place. They were written by Roy Pierce, Renfrew Co., Ont.; Howard Jamieson, Northumberland Co., Ont.; Douglas Cleghorn, Wellington Co., Ont.; Russel Day, Simcoe Co., Ont.

sympathetic and affectionate girl remembers to do her share in making home a model of happiness, not taking everything as a matter of course, but giving an abundance of love and sympathy in return for all that is done for her. Her heart tells her that she never can do enough for her mother, and that it is a privilege and pleasure to be able to do all in her power for one who is so dear. She values her mother's approval and knows that never in all the world loving a friend as her own mother.

Some girls are more like a grey-hound around the waist than a human being because they lace so tight. It is generally this kind of a girl that paints her face and frizzles her hair. Then there are some girls that if they had a freckle on their nose would not stop short of taking a knife to cut it off. Other girls are very particular about their hands, and if they get tanned they buy powders and creams that cost a small fortune in themselves. There are some girls that are always trying to reduce their flesh, and will even drink a pint of vinegar every day and such things. The best kind of a girl for the farm

is one that will dress in homespun or dress in something that will wear and not a stylish dress. She does not care what kind of feet she has as long as she can make use of them. A farmer's girl should know as much about the farm implements and horses as the farm hoy, and she should be allowed to help her father outdoors as well as her mother indoors.

Eganville, Ont. ROY K. PIERCE, R R No 1. (Age 13, Bk. V.)

GIRLS.

Girls are violets in the garden of life.

Large numbers of them are to be seen under sunshades in summer. If one takes great caution they can be approached with safety, but there should always be two feet ten inches between you and them. They carry lassoes by which they catch boys, and after they catch you they shut you up in a round dungeon called, "the domestic circle."

Girls are to life what the cases are to the Sahara, the spot on which the eye loves to dwell: I mean girls are always kind to children and fondle them when you are by. When they are spoken to they look away and bend their necks. This often makes strong boys weak in the legs, and so queer in the head that they fall on their knees and repeat queer things they have heard in novels. The voices of girls are like the songs of larks in May; they seem to tell us news that is wonderful. Girls talk and sigh a great deal and like to walk under the moon, which is unwholesome.

Girls eat and drink everything like attar of roses and pots of cold cream; they go to parties and dances until nine o'clock in the morning; they keep albums, and always ask you for your picture. Girls have two tempers: one may be observed when they walk in the public promenades, and the other when they throw knives and forks at the

heads of their brothers and sisters.

Girls are like the sweet cool morning; full of promise. Girls when they wear rings on their first fingers become very quiet. They buy a lot of things at milliners; and their hearts grow so open that they fall to pitying all other girls. At this time they are often studying kind of catechism in which the words "I do" occur very often. This makes them melancholy. They seldom go out; but occupy themselves in packing up trunks, burning letters, and trying on dresses They get married and they live happy ever after.

HOWARD JAMIESON, Camborne, Ont.

#### GIRLS.

thought I would try and write a few lines to give my opinion on the subject. To begin with, girls are the feminine of boys, and are descended from Eve. Some have the same curiosity as she had, and often lead young men into temptation just as she did.

There are two or three distinct classes of girls. First the society class who are doing nothing all day, but dressing for this, and dressing for that, and going to the theatre at night, doing the

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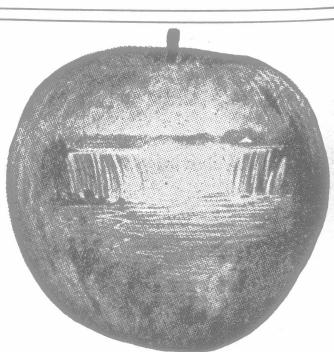
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world little good if any. The next class is the middle girls who are neither working girls or society girls, but are the class of whom people have the highest opinions, who visit the sick and help all they can to make life a pleasure. The third class is more useful, the working girl, who has to work hard to earn the meagre living she manages

Some people think girls are to look at, others to get their victuals ready. While I think a little of them both and a few other things. I think that they ought to help all they can is the main one.

DOUGLAS CLEGHORN. R. R. No. 7, Guelph.

Dear Puck and Beavers,-I see the new competition for the Beavers now, and I am going to try my luck.

All girls are full of fun, and are glad when they get a chance to have some. They go to school the same as the boys, and whisper to each other when they get the teacher's back turned. At recess and noon they play games, such as hide-and-go-seek, and basket-ball. They see their playmates nearly every day, and sometimes they have a birthday party and ask all their playmates and friends to come and have a good time. They play games and at night/ have tea, then they leave for home.

In the winter they go skating and aleighriding, which is great sport. Skating, indeed, is good exercise, and is all right as long as it is not too cold. They have to work as well as play, but their work is all inside which is all right on a rainy day, but some days I think they would rather be outside in the sun. I will now close, wishing the Beaver Circle every success.

RUSSEL DAY. Creemore, Ont.

### The Ivory Snuff Box.

By Arnold Fredericks. (Copyrighted.) Chapter IX.

THE TRIALS CONVERGE.

It would be difficult to describe the feelings of annoyance and chagrin which swept over Duvall as he tossed the box of Perrier rice powder over the side of the vessel and watched it float away on the crest of a wave before being swept into the darkness.

He glanced for an instant at his companion, then turned away as he saw the latter's stare of astonishment and dis-He wanted to be alone, to think out this matter for himself.

With a confusion of ideas racing through his brain, the deck, trying to discover wherein his reasoning had been at fault. He went back to the gruesome scene at the house of the ambassador-the murdered valet, with the grim seal of silence upon his lips.

Whoever had committed this murder had made away with the snuff-box; of that he felt certain. Upon what, then, did his suspicione of Seltz rest? The evidence was slender-merely that the latter had had an appointment to meet the murdered man that afternoon, and that a person answering Seltz's description had inquired for the latter at the servants' entrance at M. de Grissac's that evening.

Not very convincing, surely; yet, taken with Seltz's evident intention to leave London for Brussels that night, certainly significant. Following, then, his original hypothesis, that Seltz was the guilty man and had the box in his possession, two solutions of the matter only seemed possible.

The first was, the man in the saloon below, anticipating, perhaps, some attempt to search his baggage, had deliberately provided himself, through Seltz, with a second package, containing a box of rice powder only, which he had placed in his satchel in the belief that if found its innocent contents would divert from him further suspicion.

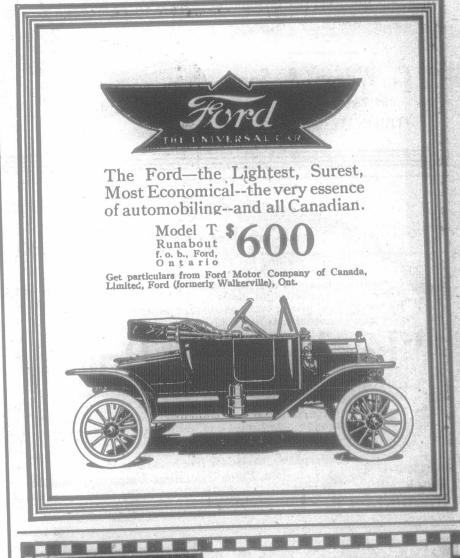
The careless way in which he had thrown his satchel on the floor beside him favored this theory. It seemed, on seber thought, extremely unlikely that the bearer of so valuable a piece of property would be so thoughtless as to place it loosely in an unlocked hand-bag. Even now the real package might be

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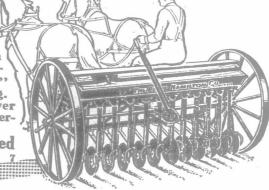
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reposing safely in some secure inner pocket

The other solution was equally probable. The purchase of the face-powder might have been quite innocent and bona fide. The man below might know nothing whatever about the snuft-box and Seltz might even now be on his way to Brussells to dispose of it in ac cordance with his original intentions.

If so, however, why had he informed M. Perrier that he had changed his mind and would not take the vacation he had requested? Was this merely a blind to avert suspicion in case the unexpected murder of the man Noel resulted in inquiries being made of M. Perrier?

Of course, when Seltz had spoken of his intention to go to Brussels no thought of murder was in his mind. He had no vital object in hiding his movements, for he had no reason to suppose that suspicion could possibly be attracted to him.

After the sending of the note to him by Noel he must have realized the danger of his position and told M. Perrier that his plans had changed, while in reality fully intending to carry them out as he had originally intended.

There was, of course, a possible third solution, namely, that Seltz had nothing to do with the murder at all, and was merely an innocent barber, quite unaware of all the mystery that was being woven about himself and his move-

In that event, as Duvall realized with the deepest chagrin, he would be obliged to return to London and begin his investigations all over again. There could be but one starting point-the murder of the valet.

Yet his painstaking examination of the scene of the murder had shown an utter absence of any clues. Even the weapon which had caused the valet's death was his own property; the finger-print on the seal which closed his lips was made with his own forefinger.

And here the detective began to feel a deep sense of doubt as to the accuracy of his conclusions regarding Seltz's guilt. Would a man of his type have taken the trouble to place the gruesome seal upon the dead man's lips? This seemed, on second thought, the act of a hardened and unfeeling criminal-a man to whom murder was a scientific accomplishment, not a hasty and hideous crime.

Was Seltz such a man?

There was no answer to this question; the fleeting glimpses which Duvall had secured of his face through the barbershop window had told him little or nothing of the man's character.

One fact, however, presently forced itself upon the detective's mind. If Seltz had left the shop for Brussels that cording to his original tion, he must be somewhere on the boat. No night route from London to Belgium existed except that by way of Harwich.

He blamed himself that, in his eagerness to discover the stranger with the satchel, he had not thought to look for Seltz.

Upon the conclusion of his deliberations Duvall crossed over to the other side of the boat where he had left Dufrenne. The little old Frenchman stood gazing down at the sea, his face blue with cold and filled with a look of bitter disappointment. He did not glance up as Duvall joined him.
"Come, M. Dufrenne,"

the detective said kindly, "let us go below." The old man accompanied him without a word. As they reached the compan-

ionway, however, he spoke. "We must return to London at once," he said. "This same boat will take us back to Harwich."

"Yes," Duvall agreed, "unless we discover that Seltz is aboard." "Seltz?" The Frenchman looked up,

puzzled, yet with an expression of renewed hope in his eyes. "Yes. We have apparently followed the

wrong man. In that case, why not search for the right one? If Seltz is on board we will follow him to Brussels. If not, we will return to London. We can make sure when the passengers are discharged at Antwerp." Dufrenne nodded eagerly.

"It may indeed be possible," he re-

marked as they entered the saloon. Most of the passengers were on deck when the steamer reached her wharf at Antwerp, but, in spite of a careful search, Duvall was unable to locate Seltz among them. He stood by the e secure inner

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gangplank, watching the crowd as it left the boat, his eyes searching restlessly

for the swarthy countenance of the barber.

He had almost given up hope when he saw a belated passenger hurriedly cross the deck and dart up the gangplank. He moved rapidly, his throat muffled in a blue neck-cloth, his slouch hat pulled down over his eyes; but the glance which Duvall obtained of his somewhat scared face told him at once that he had located his man.

He signaled quietly to Dufrenne, who had been standing discreetly in the back-ground for fear the barber might recognize him, and the two left the boat together some forty or more yards in Seltz's rear.

They did not make any attempt to follow him closely. There seemed no room for doubt that he was bound for the train to Brussels, and Duvall and his companion followed along at a leisurely pace, showing nothing of the agitation they so keenly felt.

They purposely avoided any attempt to enter the same compartment with the barber, being satisfied when they saw him climb aboard the train. They did, however watch the departing passengers at all stops, and when they rolled into the station at Brussels they were certain that their man was aboard.

Nor were they mistaken. They saw him alight, look swiftly about as though fearing that he was being followed, and then start at a rapid pace toward the street.

Duvall went after him at once, directing Dufrenne to go to the Hotel Metropole and secure a room in his own name, where he was to wait until he heard from his companion. These instructions given, the detective began to follow Seltz up the street.

The man evidently knew the town well. He made no pauses, and did not hesitate at any time during his long walk. It terminated at a small, thirdclass hotel in the older part of the city, where he went in, entered the cafe, and, selecting a table in a dim corner, ordered breakfast.

Duvall, feeling safe in leaving him, at once sought a telephone and proceeded. to call up Dufrenne at the Metropole. The latter, meanwhile, had turned from the railway station and was proceeding up the street at a leisurely pace, when a young man approached him from behind and touched him lightly on the shoulder.
"M. Dufrenne?" he inquired, smiling.

The curio dealer glanced at the man who had accosted him, and an answering smile lit up his face.

"Oh, Lablanche, glad to see you," he aid. "I did not know you were on said. this case."

"M. Lefevre sent me from Paris last night. We are expecting news at any moment. M. Duvall is with you, I observe."

"Yes. He is following the man from London. He will telephone me as soon

as he learns his destination." The man whom Dufrenne had addressed as Lablanche looked grave.

"This affair has, we believe, been engineered by a physician here-Dr. Hartmann. You have heard of him, of course.''

Dufrenne turned to his companion.

"Hartmann-the man of the stolen war plans? Mon Dieu! Why did I not think, of him before?" He seemed deeply chagrined. "Of course, of course; that explains everything."

"Where is M. Duvall to communicate with you?" Dufrenne's companion asked presently.

"At the Hotel Metropole. I shall take a room there at once."

"Good. I must leave you for a short time. Await news from me at the hotel. I shall, I hope, be able to inform you within half an hour whether our suspicions regarding Dr. Hartmann are correct or not. If they are, you will of course advise M. Duvall accordingly. Above all things, the delivery of the snuff-box to Hartmann must be prevented. On that point the prefect was emphatic."

The young man turned into a cross street as he concluded and was swal-

lowed up in the crowd. Dufrenne, after securing his room at the Hotel Metropole, sat down to wait. He did not have to wait long. The young man, Lablanche, joined him in a

short time. "We have just learned," he said grave-

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what will GROW. I have 300 bus. Wis. No. White Corn and 100 bus. of White Cap Yellov Dent that was picked for seed. Picked from standing stalk after being fully matured and placed or arying racks. Never piled up, and thoroughly drie before cold weather. This corn is an early variety and especially good for silo and fodder. Will ship in crate or shelled. If shelled will be tipped and graded. Will ship on approval. Address

THE POTTER FARM,

Roy Potter, Manager

Essex Ont.

## O. A. C. No. 21 Barley

Still have a good supply of barley left, best to date. It possesses less hull and produces more weight per acre than any other grain; 80 cents per bushel.

OATS ALL SOLD.

John Elder & Sons, Hensall, Ontario

#### FOR SALE—SEED CORN Many varieties; also Feed Corn. Apply to

Edward Tellier, St. Joachim, Ontario

CLOVER SEED—Red Clover, Alsike and Timothy, high government tested. Write for samples and prices SHIPMAN & DAWSON Cannington

#### SEED CORN FOR SALE

High germination test. White Cap Yellow Dent Grown on our own farm. Write TISDELLE BROS., Tilbury, Essex Co., Ont

None-Such WHITE CAP YELLOW DENT. Matures early Carefully selected and dried. Reduction on farmer's club orders. R. A. JACKSON, COTTAM ONTARIO. ONTARIO

Strawberry Plants — Most profitable varieties. Grown under ideal conditions. 125 for \$1.00 post paid SILVERWOOD FRUIT FARM

W. J. Galbraith, Phelpston, Ont

Strawberries and RASPBERRIES reactheir highest development here on the shore of Lake Erie. Our Free Catalog describes 50 leading kinds, with cultural directions etc. Be sure and write for it.

THE LAKE VIEW FRUIT FARM
H. L. McConnell & Son. Grovesend. Ont.

#### SEED POTATOES Davies' Warrior Choice Stock bag, \$1.50

D. A. McNAUGHTON

Strawberry Plants — Williams' Improved Parson's Beauty, Splendid. Sample; Fountain, Steven's Champion and other leading varieties If interested, write for our catalogue and price list. W. WALKER, Port Burwell.

# LOOK OUT FOR THE

ASSURANCE COMPANY'S big advertisement, which is due to appear in nex-week's issue, emitted, "t" in You Afford to South F

What Every Dairyman Needs A clip to hold the cow's fail while milking Handy and easy to use. Saves the milker-many a nasty blow in the face from the cow's tail white milking. Sent post paid to any address, with fun instructions as to how to use them, upon receipt of 50k (fifty cents). Address:

R. A. CHAMBERLIN 83 Bayswater Ave. Ottawa, Ottawa, Ontario auction sale.

ly, "that our suspicions are entirely correct. Dr. Hartmann is responsible for the theft of the snuff-box, and is momentarily expecting the man who is to deliver it to him.

Dufrenne looked grave. "Duvall should know this without delay," he said.

He had no more than spoken when the telephone bell in his room rang. He hastened to reply, and found Duvall at the other end of the wire.

"Come to the Hotel Universelle," the latter said laconically. "Hurry, I will wait for you."

Dufrenne communicated the message to Lablanche. The latter nodded.

''Good!'' he said. ''Give M. Duvall

the information you have, and above all impress upon him the necessity of acting immediately. There is no time for delay. I will follow at once with another of our men."

The curio dealer found Duvall pacing anxiously up and down the hotel corridor, pretending to be searching a railway time-table.

He nodded imperceptibly toward the rafe as Dufrenne entered, then turned and went out into the street. The old man followed him. In a few moments they were conversing rapidly in the doorway of a near-by shop.

Dufrenne had but a few words to say, but they were sufficient to show Duvall the extreme gravity of the situation. He stood for several moments, considering the best way by which the delivery of the stolen snuff-box to Dr. Hartmann might be prevented. Then he signaled a cab which he saw approaching.

"Seltz is breakfasting-inside," he said quickly to Dufrenne. "Don't let him out of your sight. I am going to see Dr. Hartmann,"

He sprang into the cab, gave the doctor's name to the cabman, and in a moment was being driven rapidly up the street, leaving the little old Frenchman standing blinking with astonishment on the sidewalk.

(To be continued.)

# Remarkable Challenge.

**BNGLISH CLOTHING FIRM** OFFERS MAN'S SUIT FOR \$4.50.

A well-known English clothing company, H. Thomas & Co., 142 Grays Inn Road, London, W. C., Eng., seems bound to become as highly popular in the Dominion as they are in Great Britain. Everybody knows H. Thomas & Co. in England for the remarkable prices they readers should note the firm's advertisement, "Gents' Suit (Jacket, Vest and Trousers), \$4.50 delivered free to you; no more to pay." Look up the advertisement on page 675, and write for free patterns and fashions to their Toronto

#### Gossip.

At a dispersion sale of Jerseys, by W. I. Knepper, at Tiflin, Ohio, March 10th, the highest price reached was \$575, for the four-year-old bull, Western King. The firm of B. H. Bull & Son, Brampton, Ont., was represented at the sale. and secured two richly - bred and useful cows to add to their notable herd. Youngstown, Ohio, March 5th, 82 head of Jerseys from the herd of John A. Logan, made an average of \$118.35, the highest price being \$260, for the cow, Olphie's Princess.

Some good Shorthorn stock will be sold at the auction sale on Maple Leaf Farm, owned by Gramby Carlton & Sons, springfield, Ont., on Wednesday, April 8, 1914. Twenty-two dual-purpose Shorthorn cows and heifers between two and eight years old, are being offered. Some are unikers; others, forward springers. In color they are roans and reds. ture cows, weight 1,200 pounds or better, and the stock is in the pink of condition. In addition to the milking cows some young stock, finished for the Easter market, will be offered, as well as growing stock and swine. Look up the notice in another column of this paper and get full particulars regarding this

# The Triple Test + **Comparative Growing**

This means that Carter's Seeds are triply tested for purity, germination and production. They are clean, healthy and profitable.

But we go still further.

At the trial and testing grounds of James Carter & Co. at Raynes Park, London, England, Carter's Seeds are put to the test of practical growing alongside of rival strains.

If any seed of ours fails to surpass these other strains, we discard it.

You have two reasons, therefore, for using Carter's Tested Seeds: - first, a larger yield per acre — second, a larger profit per bushel.

Kindly write us your address so we can send you a free catalog of Carter's Tested Vegetable and Flower Seeds—special edition with all prices in American currency.







BRUCE'S GIANT FEEDING BEETS.—The most valuable Field Roots on the rket, combine the rich qualities of the Sugar Beet with the long keeping, large size market, combine the rich qualities of the Sugar Beet with the long keeping, large size and heavy cropping qualities of the Mangel. We offer in two colors, White and Rose. 1b. 12c, 1/2 lb. 20c, 1 lb. 35c, 10 lbs. \$3.00.

BRUCE'S MAMMOTH INTERMEDIATE SMOOTH WHITE CARROT—The best of all field Carrots. ¼ lb. 40c, ½ lb. 70c, 1 lb. \$1.20, 3 lbs. \$3.00.

BRUCE'S GIANT YELLOW INTERMEDIATE MANGEL—A very close second to our Giant White Feeding Beet, and equally easy to harvest. ¼ lb. 12c, ½ lb. 20c, 1 lb. 35c, 10 lbs. \$3.00.

BRUCE'S NEW CENTURY SWEDE TURNIP—The best shipping variety, as well as the best for cooking: handsome shape, uniform growth, purple top. ¼ 1b. 12c, ½ 1b. 20c, 1 lb. 35c, 5 lbs. \$1.50.

BRUCE'S GIANT KING SWEDE TURNIP—An improvement on Jumbo, or lephant Swede, tankard shaped, large, good quality, heavy yielder, and good keeper. lb. 12c, ½ lb. 20c, 1 lb. 35c, 5 lbs. \$1.50.

Prices are here—Add for Postage, if to be mailed, 5c for  $\frac{1}{2}$  pound, 10c a pound. Bruce's Giant White Beet, Bruce's Mammoth Intermediate Carrot and Bruce's Giant King Swede led all the others in the experimental tests, Ontario Agricultural College for 1913. FREE—Our handsomely illustrated 112-page catalogue of Vegetable, Farm and Flower Seeds, Plants, Bulbs, Poultry Supplies, Garden Implements, etc., for 1914. Send for it.

John A. Bruce & Co., Limited., Hamilton, Ontario. Established Sixty-four years.

WE WILL GLADLY GIVE INFORMATION REGARDING THE USE OF

on your soil The soil must be sweet to produce good crops. Where sorrel, horse tail moss, etc., appear, the soil is sour, and you cannot expect the maximum yield of hay, cereal or fruit without correcting this acid condition. Lime Carbonate (Caledonia Marl) will do this. In many instances it has more than doubled the yield. We furnish blue litmus paper free with directions for testing your soil. Write us for further information. Agents wanted.

Agents wanted. INTERNATIONAL AGRICULTURAL CORPORATION
lia Marl Branch 8272 Marine Bank Buildings, Buffalo, N.Y. Caledonia Marl Branch

When writing advertisers please mention this paper.

APRIL 2, 1914

Women were slaves once.

Some of them have never

gotten over it, particularly

on wash day.

If YOU are still bound and shackled by wash day

and shackled by wash day slavery, in vestigate the "Playtime" Washer. Do not con use it with the old-fashioned Washers that you have heard of. As a power machine it is specially adapted for the country where gas, gasoline, steam engine or windmill power is available.

See the "Playtime" at your dealer's or send to us for full information.

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91 to 1,218 gallons

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H.-A. Co.'s, write for catalogue No. 24, showing over 700 different styles

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Thousands of farmers have responded

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For full information as to terms, regulations and settlers' rates, write to

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Parliament Bldgs., TORONTO

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The Bennet \$22 Portable Typewriter
does work of high-priced machines. Every big improvement; visible standard writing keyboard,
reversible ribb in write for catalog.
We could do with a few more live agents.
National Machine Co., Brighton, Ont

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and sizes for ALL purposes.

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Jumbo, or good keeper.

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Ontario. y-four years.

USE OF weet to produce tail moss, etc., most expect the r fruit without time Carbonate many instances d. We furnish ions for testing r information.

ION Buffalo, N.Y.

his paper.

bushe's mammoth clover, government tested 60 tons mixed hay \$9 a ton, barn. Joseph Gibbons - La Salette, Ont.

#### Questions and Answers.

lst.—Questions asked by bona-fide subscribers to "The Farmer's Advocate" are answered in this department free.

2nd.—Questions should be clearly stated and plainly written, on one side of the paper only, and must be accompanied by the full name and address of the writer.

dress of the writer.

3rd.—In Veterinary questions; the symptoms especially must be fully and clearly stated, other wise satisfactory replies cannot be given.

4th.—When a reply by mail is required to urgent veterinary or legal enquiries, \$1.00 must be enclosed.

Miscellaneous.

Income Assessment—Statute Labor.

1. Has an assessor of a municipality any right to assess a young man or woman (who is teaching school and is only nineteen years of age) on income, on the part of their salary which exceeds \$400)

2. If their salary is assessable, are they liable to perform statute labor, as they are not assessed for property? H. J. S.

Ans.-1. Yes. 2. No.

#### Gossip.

L. O. Clifford, of Oshawa, Ont., writes: "I am importing about 100 head of Herefords from the United States-one carload of bulls goes to Calgary, Alta., and a carload of heifers to Fort Francis, The balance are being distributed all the way from Nova Scotia to Manitoba.''

We call attention to the coming dispersion sale of pure-bred Holstein-Friesian cattle, the property of P. J. Salley, Lachine Rapids, P. Q. This gives promise of being the greatest sale ever held in Canada. The cattle to be sold will give the buying public an opportunity to purchase cattle that heretofore could not be priced to anyone. The herd is the produce of keen selection and careful breeding. They have not been assembled for the purpose of speculation, but have been bred and developed with painstaking care to establish as good a herd as it was possible to have. It contains many animals that no breeder would ordinarily consent to part with. Mr. Salley has made several importations from the best herds in the United States, and most of the cattle offered are descendents of these early importations. The present herd sire, King Isabelle Walker (he also will be sold), is proving himself a sire of exceptional transmit-ting ability. Mr. Salley is now testing some of his daughters, and they are all making very creditable records. King Isabelle Walker was sired by King Walker, fast coming to the front as one of the breed's greatest sires. Only last ek it was reported that one of his daughters had broken the world's record in the yearly division as a junior twoyear-old. The dam of King Isabelle Walker, Isabelle Clothilde Walker, butter 27.65 in seven days, and 107.21 in thirty days. She also shows up well in the yearly division with 22,000 lbs. of milk, containing 990 lbs. of butter. She is the dam of a 32-lb. four-year-old daughter, and a 29-lb. four-year-old daughter. This goes far to prove that her descendants have inherited her great productive ability. There are some twenty of his daughters in the sale, all of which are model individuals. The junior herd sire, King McKinley Lyons (also to be sold), was sired by King Lyons, the present herd sire at the Moyer Farm, Syracuse, N. Y. He is by a son of Colantha 4th's Johanna (35.22), world's champion for several years, and from Segis Betta, a 27-lb. daughter of King Segis and Betta Lyons Netherland, a 34-lb. cow, with a 34-lb. dam. The dam of King McKinley Lyons, A. & G. Inka McKinley (29.63), is unquestionably one of the greatest transmitting cows of the breed, through her son, King Segis. Space will not permit to give a full account of all the good things in this sale, their being daughters of such noted sires as King Segis, Paul Beets De Kol, King Fayne Segis, and Prince Hengerveld of the Pontiacs. Write Mr. Salley for catalogue now ready. Plan to attend this sale. Mr. Salley's farm is situated six miles from the city of Montreal, and the Wellington-street cars will take you within two miles of the farm, where suitable conveyances will meet all cars the day of the sale. The sale will be held under cover if necessary, and on April 9th,

# **Modern Conditions** Demand Modern Methods!

There is as keen competition to-day in the farming business as in any other. Keep up with the progressive fellows by adopting modern methods. No dairyman or farmer can mix feeds himself that will even approach the tried and tested Caldwell products, even by spending double what they

SUBSTITUTE Calf Meal

contains Linseed (Note: not Cotton Seed), Wheat, Oat, Corn, Locust contains Linseed (NOTE: not Cotton Seed), Wheat, Oat, Corn, Locust Bean, Pea and Molasses Meal in correct proportions to ensure the best results. These ingredients are guaranteed to the Government, and by analysis provide the following: Protein 19 to 20%, Fat 7 to 8%, Fibre 5%. Providing, as it does, almost the identical nutritive elements found in whole milk, Caldwell's Calf Meal enables you to sell your milk and raise just as good calves without it. As a feed for use during the process of "vealing-up" it is without an equal for results.

# **ALDWELL'S** Dairy Meal

is a high protein, carefully-balanced cow ration for the production of milk. It is prepared from selected materials, carefully recleaned, and contains no mill sweepings, oat hulls or other cheap "fillers." Government-guaranteed—the same as all Caldwell products. Analysis proves that it furnishes Protein 20%, Fat 6.3%, Fibre 10%. All the beneficial elements contained in Caldwell's Dairy Meal are presented in their most easily-digested form. It will increase the milk flow and keep your cows in prime condition

# Molasses Meal

is the unequalled upbuilder of horses, cattle, sheep and hogs. It contains 84% of PURE CANE MOLASSES (Note: not Beet Molasses) and 16% Edible Moss. These two ingredients contain food elements that are not present in the most expensive straight diet of cereals you can use. Caldwell's Molasses Meal is mixed with the ordinary feed, and renders it more palatable and easier to digest. It not only cuts down feed bills, but makes ordinary feed far more beneficial to stock, keeping your animals in perfect condition the year 'round. It has unique antiseptic and digestive properties that will cause a prompt improvement in the animals fed with it. Try Caldwell's Molasses Meal and see whether it does not give you better results and save you money as well. it does not give you better results and save you money as well.

N.B.—If your dealer cannot supply you with Caldwell's, write us direct. Send for free booklets on any or all of the above feeds.

The CALDWELL FEED CO., Limited DUNDAS, ONTARIO

# EDDY'S FIBREWARE

TUBS AND PAILS RETAIN THE HEAT OF THE WATER MUCH LONGER THAN THE WOODEN OR GALVANIZED IRON TUBS, ARE CHEAPER THAN THE LATTER AND WILL NOT RUST THE CLOTHES.



Head Office:

**TORONTO** 

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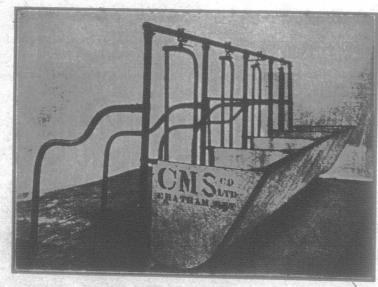
INSURANCE IN FORCE \$19,500,000.00

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To liquidate that mortgage—to provide for old age—apply to-day for an Endowment Policy. DESIRABLE VACANCIES FOR AGENTS. EXCELSIOR CONTRACTS
ARE UP-TO-DATE.

FOR SALE Sixty acres mixed timber, 40

Fresh Air and Sunlight are Very Important to the Health of Stock



## Chatham "All Steel" Stalls and Stanchions

allow perfect circulation of fresh air and sunlight. Your cattle thrive amid the sanitary surroundings of the CHATHAM furnishings, and pay you a much larger percentage of profit.

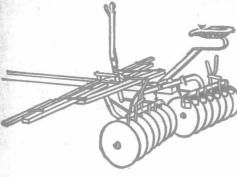
Chatham "All Steel" Stalls and Mangers are simple in construction;

offer every advantage of modern steel stalls at a small price.

If you are going to remodel or build, drop us a card to-day for our free catalogue "A," fully explaining these stalls and stanchions. Also our Easy-

CHATHAM MALLEABLE & STEEL COMPANY CHATHAM, ONTARIO

# The "Bissell" has the capacity



Because of its capacity, time after time the "Bissell" Disk Harrow has done DOUBLE THE WORK in field competition against all competitors, under the same conditions

The special shape of the "Bissell" plates cause them to enter the ground naturally and TURN THE SOIL EASILY. Steel scraper blades meet the

Disk Plates chisel fashion and keep the plates clean of trash by movable clod irons-the only Harrow that has this feature. Anti-friction balls (40) are used in the bearings, on every "Bissell" Disk.

The seat is placed back on the Harrow so that the weight of the driver when riding balances over the frame and REMOVES NECK WEIGHT. The hitch is well back, MAKING LIGHT

Search the Continent over and you will not find a Harrow with such cutting capacity, easy draught and correct proportions as the "Bissell." A postcard to Dept. W will bring you a free catalogue.

T. E. BISSELL CO., LTD., ELORA, ONT. JNO. DEERE PLOW CO., Ltd., 77 Jarvis St., Toronto Selling Agents for Ontario and Quebec



### **Ouestions and Answers**,

Miscellaneous.

#### Wide Tires.

Can a township council pass a by-law prohibiting the use of anything less than four-inch wagon tires on the roads within that township? The county council refused to pass a by-law to that effect for the county.

TOWNSHIP RESIDENT.

Hens Lame.

#### Ans.-We do not think so.

We put up a new henhouse this fall and bought new chickens, some young and some old, from two different places. All birds were, seemingly, in a healthy condition. We keep everything clean, and feed wheat, barley and oats, mixed oyster - shell, mangels, and some green feed. Now they are some lame on both legs, but look healthy otherwise. Does the cold weather affect these hens, or

what is the cause and remedy? E. B.

Ans.—They may be rheumatic or tubercular. It will pay you well to sacrifice one of them to ascertain the trouble. If tubercular, the liver or glands may be studded with small, elevated, white and yellowish tubercles, or if it be in the advanced stages, the liver will be enlarged. Hens usually show the disease in a slight paleness about the head, and diarrhea. If it be rheumatism, nothing but dryness and exercise, with good feeding, will bring them normal again. Regarding tubercular hens, you will find some information in this same department.

#### Holidays and Wages.

I am a married man, hired by the year on a farm. As I could not get the necessary things for the house on legal holidays, I took other days.

1. As I have worked all the legal holidays, will I have to put in the other days that I took off in going to town? I took five days off.

2. Can my employer deduct wages for the days I took off if I don't put them

3. Can a hired man on a farm take other days instead of the legal holidays, as some of the legal holidays come in busy times?

4. If my employer tries to make me put in the days I took off, and I put them in, can I collect wages for the legal holidays?

Ontario. A SUBSCRIBER. Ans.-1. No.

2. We do not think so. 3. Only by arrangement with his em-

ployer. 4. No

#### Horses unthrifty.

1. I have a Hackney mare that does not keep in good condition. She is always gaunt, and will not eat sufficient to keep in good flesh. Have been feeding roots and bran and linseed meal, as well as hay and oats. What would you ad-

2. Have a registered mare that is out of condition and not in foal this year. Does not appear to be doing as she should. She has been well fed, but still keeps poor. I think, perhaps, she has worms.

Ans.-1. See that her teeth are right, and be sure that she does not have worms. Mix equal parts of sulphate of iron, gentian, ginger and nux vomica, and give a tablespoonful in the feed three times daily.

2. If the mare has worms, it will be necessary to rid her of them first by using the following remedy: Take 11 ounces each of sulphate of iron, sulphate of copper, and tartar emetic, and 1 ounce calomel. Mix, and divide into 12 powders. Give a powder every night and morning in damp food, or in a little water as a drench. After giving the last powder, in about 8 or 10 hours, give a purgative ball of 8 drams Barbadoes aloes and 2 drams ginger. In giving a ball, draw the tongue well out to one side, place the ball well back on the roof of the tongue, then release the tongue, holding the head well up till he swallows. Have a druggist mix and divide the medicine. Feed bran only before and after purgation for a couple of days, and do not work till bowels regain normal condition. Follow this treatment with the tonic mentioned in answer to question No. 1.



of your methods of drainage and tillage and of your growing crops—with and without fertilizers. Such a record will enable you to study and improve the conditions governing their growth and will help you to better profits next year.

Let the Kodak at \$7.00 and up, or the Brownie from \$1.00 to \$12.00, keep the record.

Your dealer has them. Ask for a Catalogue, or we will send it free by mail.

Canadian Kodak Co. Limited

592 King St. W. TORONTO

AUCTION SALE OF DUAL-PURPOSE

#### Cows and Heifers CATTLE AND HOGS

CATTLE AND HOGS

Moore & Dean have received instructions from Camby Charlton & Sons, "Maple Leaf Farm," Lot 5, Con. 11, South Dorchester, 1 mile north and half mile east of Springfield, to sell by public auction on WEDNESDAY, APRIL 8, 1914, commencing at 1 o'clock sharp, the following valuable property: 22 dual-purpose Durham cows and heifers, between 2 and 8 years old, new milken and forward springers, mostly roans, a few reduction of the matured cows will weigh 1,200 lbs. or better, all in the pink of condition. Purebred Durham bull, red, one year old, not registered; 30 steem from one and one-half to two and one-half year old, Durhams and Herefords, all good colors, in fine condition, all dehorned; 4 2-year-olds, fed to Easter beef and extra good quality (cash) if not sold before sale; 2 heifers coming 1 year old; 30 spring calves 2 months old and younger; 10 shoats, weigh 160 lbs.; 2 smaller shoats, 80 lbs.; Berk. sow to farrow in June. Rapid Easy grain grinder, 8 in plates. Springfield is on the M.C.R., 15 miles east of St. Thomas, and can be reached from the east at 9.30 a.m., from the west at 10.10 a.m.; returning, going west at 5.30 p.m., going east at 11.30 at 9.30 a.m., from the west at 10.10 a.m.; returning, going west at 5.30 p.m., going east at 11.30 p.m. Conveyance will meet the morning trains come and see the stock whether you buy or not



# Save One Man's Labor

You need nobody to hold the bag. You can fill it quicker, better, cleaner if you use the

# Imperial Bag Holder

Made of iron and steel. Simple, light, strong, portable, adjustable and cheap. Holds any size of bag securely, yet will not tear the bag. Price only \$3 each. Send to-day or ask your dealer. THE IMPERIAL BAG HOLDER CO.

Lucknow, Ont. Agents wanted. Big money. Write to-day. APRIL Que

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in grinder, 8 in R., 15 miles east ed from the east 10 a.m.; return-ng east at 11.30 morning trains you buy or not-

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Per Cent

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an-Wilkinson 415 Syming-Foronto, Can.

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Ouestions and Answers. Miscellaneous.

Payment of Taxes.

I live on a rented farm, the agreement being that I pay taxes. Our township is building a new bridge. Have I to pay the tax on the new bridge? The bridge cost about \$6,000.

Ans.-We think so.

Alfalfa Seed.

Will you kindly let me know where I can get guaranteed seed of Grimm's, and Variegated Ontario varieties of alfalfa seed? In my last number of "The Farmer's Advocate" I see no advertisements of either of these varieties offered by anybody. The only advertisement I have seen is one in which home - grown and northern-grown alfalfa is offered, but do not say anything about what variety of seeds these mean, whether Grimm's or Ontario Variegated.

Ans.-Parties having this seed for sale should advertise in these columns.

An Annuity Deed.

By a deed of donation that was made between my father and myself, I was to pay eighty dollars a year, to be paid in June of each year. My father died.

1. Am I obliged to pay the full amount to my mother, or only the half? 2. If she is satisfied to take the money any other time, before or after the month mentioned in the deed, can it be so arranged?

8. Can any of my brothers take their share on that account?

Ans.-1 and 3. We could not answer either of these questions without seeing the document, or a copy. 2. Yes.

Silo in Barn. 1. You speak of some small silos erected last summer. How high were they? I would like to put mine in the barn, coming up from the basement, 24 feet high, 12 or 14 feet across. Would that be high enough to make good silage ?

2. Would it require a roof on it in the barn?

8. Could I run it up through the roof

of barn? 4. Would not the silage be easier gotten out if it were in the barn? I could have one door in the basement close to

feed-room. 5. Is there any reason why the silo is better outside, when one has lots of barn room? I would think it would dot freeze so much in the barn; straw around it; stave silo.

with the elevator. Is carrier and elevator the same thing, or how are they put on? Is there a firm makes them? R. McR.

Ans.-1. We do not consider that a 24-foot silo is high enough to insure you good silage. We have in mind one or two that were built 28 feet high, last summer, and the silage is quite unsatis-

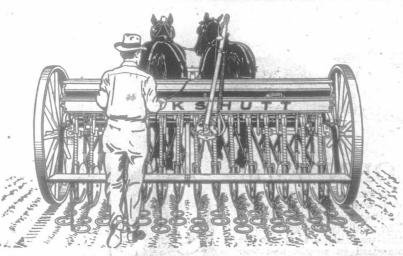
2. It is not necessary to have a roof on the silo if you build it inside the barn.

8. You could run the silo up through the roof of the barn, but we consider that it is inadvisable to do so.

4. Possibly under your conditions you could get the silage out of the silo a tittle bit easier, but if the doors are put where they should be in the silo, there la no difficulty in getting the silage out of the silo.

5. Perhaps the silo is not better outside the barn, but you must have an exceptionally large barn for the size of your place if you have more room than you need. One objection to building silos inside the barn is that the gases given off by the silage during fermentation are liable to injure the roof. They will not freeze so much in the barn, that is true, but it is not desirable to have the silo closely connected with the stock, as the gases given off disseminate throughout the whole barn. They have been built inside with good results, but we prefer the silo built outside the barn.

6. Sometimes these names are both used as applying to the means of elevating the corn. There is a firm manufacturing a special type, which was advertised in this paper some time age.



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You sow with certainty when you seed with a COCKSHUTT Drill. The certainty of having given your seed the best possible chance to produce good crops.

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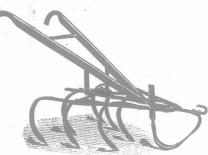
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If there is no agent in your locality handling this wonderful cultivator, write us at once, and we will be pleased to give you full particulars regarding this implement and price on the same.

#### This is a Testimonial We Have Received:

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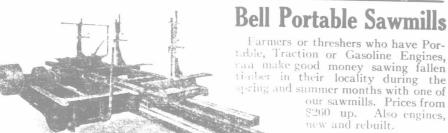
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Mills at Toronto and Montreal



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E. & T. CO., Limited
Seaforth, Ont.

## Questions and Answers. Miscellaneous.

#### Laws of Trade.

Kindly let me know if you can inform me where I could get the following book: "Foundation of Success and Laws of Trade," published by Schuyler, Smith & Co., of London, Ontario, in 1877. I would like to have a book of this nature. If the book cannot be obtained, perhaps you have seen one its equal?

G. S.

Ans.-We do not know this book.

#### About Sweet Clover.

I want to know if any of the readers of this paper could give me any information about the yellow sweet clover, as it is so much cheaper than the white. If I were to sow some this spring, could I get stand enough to plow down in the fall for manure?

J. A. H.

Ans.—Yellow sweet clover is not as productive or rank a grower as the white sweet clover, but by getting a thick stand and cutting young, the white sweet clover is superior. Some claim preference for the yellow sweet clover on the grounds that it does not grow quite so rank as the other, but if properly handled, we prefer the white sweet clover. Ordinary sweet clover will make a very large growth, and provide considerable green manure to be plowed down in the fall

#### Black Leg or Black Quarter.

Could you give me any information regarding a disease called black leg. Am losing one and two a day, and the veterinarian who was sent by the Government said it was black leg. Is there any cure or preventive? What causes it? Is it catching, or can it be brought in from outside by beef cattle coming in from Alberta? Please give me all information possible on the subject, or give me name of any book on this terrible disease.

J. B. B.

Ans.—This disease is not generally contagious among animals. On page 620, March 26th issue, a similar question is answered. We know of no book dealing exclusively with black leg, but it is treated in most veterinary books. Would advise you to get in touch with the Department of Agriculture, Ottawa, and explain your case.

#### Replenishing a Poor Stand.

1. A field seeded down last spring to clover and timothy did not catch well, and intending to pasture same, what could I sow this spring to thicken it up for pasture?

2. Where can I get O. A. C. No. 21 seed barley and Banner oats, and at what price?

D. McE.

Ans.—1. If you are not breaking up this poor stand, you might replenish it somewhat by scattering on some orchard grass seed and timothy seed. This would be better worked in with a light harrow. It will be advisable, and almost necessary, to keep the stock off this field until it has gotten a good start.

2. Established seed firms carry these grains, and by writing to any of those advertised in the columns of this paper, you would be able to get a description of their seed and the prices for same.

#### Form of Scratches.

I have a young mare supposed to be in foal, which has something wrong with her hind legs. There is a dandruff or scurf coming out in the long hair. It is not itchy, but she does not like you to rub it when drying the wet or snow off. Had a little touch of it last winter, but it dried up in the summer. What do you think it is, and what would help her?

One of the summer of the summer.

Ans.—This is a form of scratches, and common during the winter and spring season. Give four days' rest. Apply hot linseed - meal poultices to the legs and pasterns for two days and two nights, changing the poultices about every eight hours. Then dress the parts three times daily with oxide-of-zinc ointment, to which has been added 20 drops carbolic acid to each ounce. Do not wash. If she gets the parts wet or muddy, rub well until dry, or allow the mud to dry, and then brush off if you have not time to rub.



#### You insure against fire— Why not against decay?

There is a small chance that your buildings will be burned, but there is an absolute certainty that they will decay if you neglect to keep them well protected by good paint.

Protection depends upon the character of the paint you use. Some paint permits moisture to go through to the wood, which starts decay and soon ruins the building. The paint that gives complete protection is



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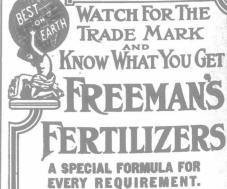
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Please mention "The Farmer's Advocate."

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#### uestions and Answers. Miscellaneous.

#### Book on Engines.

1. Give the names and addresses of one or more leading thresherman's magasines published in Canada.

2. Also a reliable book on steam trac-A SUBSCRIBER. tion engines. Ans.-1. The Canadian Thresherman

and Farmer, published in Winnipeg, Man. 2. The Young Engineer's Guide may be had through this office, at \$1, post-

#### About Coons.

1. When do coons breed?

2. What is the length of their period of gestation?

3. Where could I get a book on coon-J. H. M. raising? Ans.-1. Coons bring forth from four

to six, usually in May or June, and the young stay with their mother nearly one year.

2. Can any of our readers answer this?

3. Ask your local book dealers to get one for you,

#### Likely Ringbone.

I have a three-year-old driving mare which has an enlargement just above the hoof which looks considerably like a ringbone but she has never gone lame, but I notice her not standing on that leg in the stable. What treatment would you consider best? She did some driving when two years old. Do you think it would be wise to breed her, as I would like to get a colt from her, as she is W. K.

Ans.—In all probability this is ring-bone, or false ringbone. The latter does not involve a joint, and thus does not cause lameness. If no lameness comes on, it would likely be advisable to leave the enlargement alone. If lameness does follow, it is likely ringbone proper, and firing and blistering by a competent veterinarian is all that we can advise. The enlargement cannot be removed, but firing may cure lameness if it should develop. You might try breeding.

#### Lump Jaw.

1. Have a cow in good condition, but has lump jaw. Would her milk be fit

2. Have a call sucking her. Would it likely develop later in calf if allowed to run with her a couple of months?

3. If she were killed, would the meat I. M. C. be fit for use?

Ans.-1. There is little if any danger of milk being affected, except in an advanced case, where the general health of the cow is affected. Try the potassiumiodide treatment. Give this substance three times daily in water as a drench commencing with one-dram doses, and gradually increase the dose by ten grains daily until the appetite and desire for water fails, tears run from the eyes, and saliva from the mouth. When any of these appear, discontinue the drug. Repeat in four weeks if necessary.

2. Not likely unless the lump breaks and discharges upon food taken into the calf's system

3. If you cannot effect a cure, it is likely the meat would be condemned.

#### Agalactia or Absence of Milk.

Will you please advise me, through the columns of your paper, as to the trouble with a pen of eight ewes? The pen is 38 x 16 feet, cement walls and floors; built last summer. They are kept well bedded. There is a hall between sheep and some pigs. Two of the ewes have lambed, and neither has any milk. One ewe is three years; the other four. They have been fed all winter on oats and clover. Exercise every day. The two ewes had fine lambs, which appeared big and strong, but after a few hours seemed to take fils and fall over and die. Was feeding lambs cow's milk.

FARMER'S SON.

Ans.-Amalactia, or absence of milk, occurs in all animals, and often from unexplainate causes. In such cases, the dam should be fed liberally with milkproducing food; roots, ground oats, and a little cake would have been preferable with the ewe. Sometimes the feeding will ramedy the case, while often the mammary lands remain inactive. Would advise you not to breed the ewes again.

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## Farmers of Ontario!

Are you requiring help this Spring? Parties of young men and boys are now coming forward. For full particulars apply

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More Barrels from the Orchard More Bushels from the Acre More Baskets from the Plants

you can get these results it means more profit from your work and more money in your bank account. There are three ways of tackling crop pests and diseases. You can sprinkle on the mixture in some make-shift

way without a proper appliance, you can get one of the cheap, inferior machines or you can buy a Spramotor and get top-notch efficiency and results.

The Spramotor is a tested and proven machine that has won over a hundred first awards and Gold Medals in competition with the world. It is used by the Canadian Government and by both State and Federal Governments in the United States. It will be found in India (where we ship in 200 lots), in Belgium, in the West Indies, in Finland and throughout the length and breadth of this continent.

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Our aim is to make every Spramotor owner a booster of our machine. It is not enough for us to be convinced of the superiority of Spramotors. We want every buyer to feel that he has the best spraying outfit made. To en-sure this result, we manufacture in our own plant every piece and part that goes into our machines, down to the smallest joint, coupling and nozzle. Every important part gets a thorough testing before being put into place, and then we test each machine as it is completed.

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Write us, giving some

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Spramotor that will do your work best, at lowest possible cost. Write us to-day.

#### Questions and Answers. Miscellaneous.

#### Absence of Oestrum.

What is the matter with my sow? She is eleven months old, and has not been in heat yet. She is in good condition; feeds well, and has comfortable quarters. I bought her as being a 'first-class sow''—a Yorkshire.

F. W. V.

Ans.-We cannot say what is wrong, and can only suggest letting her run out for free exercise, feeding liberally on heating food, as dry peas or corn, and turning her in with a boar every day or Some young sows do not show very marked signs of heat, and may be in that condition without the owner knowing it.

#### Horses Lolling.

Could you tell me what causes a young. mare to hang out her tongue while the bit is in her mouth? Also if there is anything that can be done to cure her PERPLEXED. of it?

Ans.-This is a habit called lolling To prevent it, use a bit for the purpose Your harnessmaker can procure it for They are straight, with either a flat piece of steel or a wire in the shape of a D extending upwards, so as to prevent the animal getting his tongue over the bit. Referring to your files of "The Farmer's Advocate" you will find such bits illustrated in the number of February 17, 1910, page 252.

#### Cabbage Worm.

I tried raising cabbage last year, and would have had a fine crop, but the worm destroyed them all. Tell me how to prevent them. E. C.

Ans.-Pyrethrum insect powder, is thoroughly effective. One pound should be mixed with four pounds of cheap flour, and kept in an air-tight jar or canister for twenty-four hours so that the poison may be thoroughly incorporated with the flour. The plants infested by the caterpillars should then be dusted with the mixture, which can be applied with a small bellows, or in a cheesecloth bag tapped lightly with a slender rod. This powder will kill insects, but is perfectly harmless to human beings. Another method, which is more rapid in its effects upon the worms, is to dissolve two ounces of the Pyrethrum powder in three gallons of lukewarm water and spray at once. The liquid kills immediately all the caterpillars it reaches, while the dry powder often takes many hours to produce the same results. Paris green and other virulent poisons should never be applied to cabbages and vegetables of any kind that are intended for

#### A Stupendous Biological Question.

able

Here is a question which you may possibly find rather difficult to answer, but which, so far from being frivolous and irrelevant, is really of profound biological interest

"Why does a hen cackle after she has laid an egg?'

Nearly all, if not all representatives of the various bird species, take great pains, not only to conceal their nest, but also to keep silence when on the nest. The reason is obvious in their case, but a hen alone appears particularly anxious to publish the fact. Bearing in mind the fact that everything in nature has its use and purpose, from the color of a rose to the scent of a lily, or the hypnotic effect of a lion's roar on its prey, the humble hen's cackle is indeed a mystery. However, it seems hard to 'stump'' your question department, and you may be able to give an explanation, or one of your readers will enlighten NATURALIST.

Ans.-It is true that modern hens make considerable ado over the production of one egg, but in primitive times their manners were more in accordance with those of their more modest relatives. We have inside information to the effect that Adam and Eve spent considerable time looking for stolen nests under the barn, garage, and corner of the bungalow. Darwin, Haeckel and Wilson, were all amazed at this deviation of the hen from the paths of biological rectitude, but the answer is simple: They realize the importance and necessity of advertising, which fact has not yet revealed itself to some of our wisest and deepest biological thinkers.

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### Douglas' Egyptian Liniment

DID IT IN ONE DAY

Clear proof of the efficacy of Douglas' Egyptian Liniment is found in the report given below—one of the many endorsements constantly being received.

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FARE and ONE-THIRD
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Return limit, April
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will sow, cultivate, ridge, furrow, etc., better than you can with old-fashioned tools and ten times quicker. A woman, boy or girl can do it. Can plant cluser and work these hand tools while the horses rest. 38 combinations from which to choose at \$2.50 to \$12. One combined tool will do all of the work. Ask your dealer to show them and write us for booklet, "Gardening With Modern Tools" and "Iron Age Farm and Garden News" both free.

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Stewart Ball Bearing Clipping Machine For Horses, Mules and Cows You lose \$1.00 on ev six sheep you shear in the old way. The Stewart gets a length and quality of wool that brings the highest price. Extra profits soon pay for it. The Stewart has ball bearings in every part where friction or wear occurs. Has a ball bearing shearing head of the latest improved Stewart pattern. Its price complete, including 4 combs and 4 cutters of the celebrated Stewart quality is \$15.7 It pays to clip horses and mules in the spring—they look and feel better, do more work, rest better and get more good from their feed. Clipping the flanks and udders of cows events the drop-ng of filth into ilk. The Stewart ing of filth into milk. The Stewart can be used for clipping horses, mules and cows without change. It's the easiest to turn, does the fastest work, stays sharp longer and is the most durable. Get one from your dealer, or send sellong for the ballong for gets all the wool and takes it off quickly and smoothly in one unbroken blanket. To shear with the Stewart Machine seems like play to those who have labored with hand shears in the old, hard, sweaty way. You don't have the same swollen aching wrists. You don't scar and disfigure your sheep with uneven shearing and spoil the wool with second cuts like you used to do. Get one from your dealer, or send us \$2.00 and we will ship C. O. D. for balance. Money back if you are not well pleased. Write for FREE catalogue showing most complete line of Sheep Shearing and Horse Clipping Machines in the world. CHICAGO FLEXIBLE SHAFT CO.
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Ouestions and Answers. Miscellaneous.

Silage in Newfoundland.

Being a constant reader of Canada's best farm paper, I should like to get information on the following:

1. What could be used in Newfoundland for silage, as corn is not grown?

2. Not being in a position to build a silo, and having several large molasses puncheons on hand, their capacity being 100 gallons, could they be made to keep silage successfully if placed one on top of another and the joints cemented?

SUBSCRIBER. Ans.-1. For feeding in Newfoundland, we would be very partial to roots. They could be pitted, or kept in a crude cellar. Crops, such as peas, clover, alfalfa and others, are sometimes ensiled, but

they are far better when mixed with

corn. 2. We are dubious regarding your proposition with the puncheons. If you could make them firm, another trouble would arise when the silage settled. The wall not being straight, in consequence of the bulge in the puncheons, air spaces would form with untoward results.

saltpetre. Some of them seem some better. I let them out on fine days. If I had given them the sulphur and salts in the cold weather would it have saved them?

3. Some people have advised me to give them copperas. Would it have any effect in taking the stiffening out of them?

4. Should little pigs just weaned have any oil cake or sulphur in their feed? I fed them skim milk and shorts.

5. Have lost quite a few small pigs this winter. They got sick and mopey for a few days, and die. Two of them reaned About four or five weeks old. The others were about seven or eight weeks old. I opened three of them, and they had quite a lot of cut straw in their stomach, and one of the small ones had lumps of curd stuck full of cut straw. What would make them eat the straw? Have they a craving for some kind of food? A. P.

Ans.-1. Refer to the Stock Department of this paper. You have partially explained the cause of the trouble. Your pens are probably too small, and they do not get sufficient exercise.

2. Your treatment is most as good as any that can be given. Endeavor to make them exercise, and if possible get them out doors where it is not too wet and cold. Provide charcoal along with the sulphur, and make a mixture of the different ingredients mentioned in the article in the Stock Department regarding young pigs, and keep it constantly before them. It is not likely that the salts and sulphur would have kept them right. Dry quarters and lots of exer-

cise might have done so. 3. Would not advise you to feed them copperas. You might stiffen them up

4. A small amount of sulphur will be for good. beneficial, but oil cake should not be fed to them while they are too young. Skim milk and middlings, or shorts which have been scalded and allowed to stand for half a day, will give you best results.

5. It is possible that your young pigs were too fat. This is often the trouble and their physical conditions become so impaired that the, resort to numerous unexplainable actions to savisfy their 363.1 Bushels Potatoes

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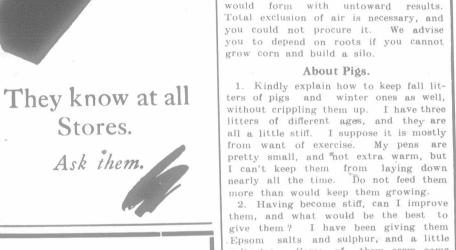
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#### Questions and Answers. Miscellaneous.

Feeding Geese.

What is the best ration to give geese to get them started to lay, and to lay the most eggs?

Ans.-Turn the geese out and let them have as much free range as possible. They will by this time be able to get to the ground, and feed them a good grain ration of peas, wheat or other grains, and give plenty of water. This is all that is needed by the geese during the spring season.

Seed Grain Per Acre.

Kindly advise me through your columns how much grain to sow per acre. R. H. P.

Ans.—The variety of grain sown and the character of your land will influence very largely the quantity which it will be wise to sow. In the case of oats, a poor stooling oat will require more seed per acre than one which stools liberally. Side oats are usually poor stoolers. In good stooling oats, on average land, sow two bushels to two and one-half bushels per acre. Of poor stooling oats, sow three and one-half to four bushels per acre. Barley, one and one-half to two bushels per acre; winter wheat, two bushels per acre.

Shearing Machines.

1. Are sheep-shearing machines profitable?

2. How are they sharpened (the knives.) ?

3. Do they get any more wool? G. H. B.

Ans.-1. Where large flocks of sheep are kept, we believe that sheep-shearing machines are profitable.

2. We have had no experience in sharpening the knives, but full directions go with each machine.

3. It may be that they get a little more wool, but we would not expect that this would be a very great consideration, because with hand-clipping all the wool may be clipped off if care is taken. Of course, a poor shearer who haggles the fleeces wastes wool.

#### A Cow Deal.

I was at a sale of farm stock and implements on February 24th. I bought a cow for \$60 that was due to calve on September 19th, 1914. The proprietor said she was to calve then, and also had a ticket on her tail which read. "Supposed to calve Sept. 19th 1914." I went after the cow the next day, and he said that it was just about three weeks since he had had the cow to the bull. I brought her home, and on the 27th of February I had to take her to the bull. He should have had her away on the 19th of December to have her come in on Sept. 19th, 1914. Can I come on him for fraud?

Ans.-Since the man did not guarantee the cow to be with calf, and since the ticket read, "Supposed to calve," we do not see that you can do anything with the seller.

A Log House.

Would you kindly give me an idea of how to build a log house about 20 x 24? How are the logs notched at the corners so that they lie close together?

A. W. S. Ans.-It will be difficult to get them to lie close together, but there are several notches by which the wall is made quite close. One notch is simply to square, as it were, the end of both logs, which come together and make a square joint. One old-fashioned and satisfactory notch was made by making a gable-form notch in the under side of the upper log, and making a saddle, as it is called, on the upper side of the under log, upon which the notch of the upper log closely fits. The idea contained herein is to exclude water and prevent decay. Many of the houses throughout the country are constructed by simply gouging out the upper side of the under log, and making a notch on the under side of the upper log that will fit into it very easily. Any of these notches are satisfactory, but the builder should hear in mind that water getting into the notches will cause decay of the logs. However, plaster or concrete can be used satisfactorily to prevent the lodging of water in these crevices.

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FOR SALE.—Owing to the sudden and unexpect ed death of my brother, Arthur Ullyot, of St Mary's, Ont., I have the following stock for sale at sacrificed prices:

Clydesdale Stallion

Diamond Cup (Imp.) 12100 = 15697 = rising four years old. Color, bay with white markings. Sire Silver Cup; grandsire, Sir Hugo. Shorthorn Bull.

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Questions and Answers. Miscellaneous.

Planting Potatoes.

Is it, necessary to hill potatoes if they are planted about five inches deep?

Ans.-Potatoes will not need hilling up if they are planted about five inches deep by plowing in every third furrow. We have seen excellent crops of tubers grown by this method. It is necessary to get the ground in good condition before planting, and if the potatoes are plowed in, give it three or four strokes with the harrow, and harrow from time to time until the potatoes are up too high to permit of the operation. This harrowing saves labor by destroying young weeds. Potatoes grown in this manner would not need any dirt thrown up around them. Of course, if they are planted with the hoe, or by any other means, and are not covered deep enough, some hilling is necessary or the tubers become badly sunburned.

#### About Silos.

I hear that concrete foundations for wooden silos are giving out. I would like to know if the silage is spoiling the concrete silos, as I do not want to go to the expense of building a concrete silo if they do not stand. What size silo would I have to build for 50 head of cattle, about 12 being cows, the remainder all ages, from calves up. I was intending to build it 38 or 40 feet high. SUBSCRIBER.

Ans.—It is all nonsense about concrete foundations "giving out." If the foundation is installed fairly deep in the ground, and sufficient drainage provided, there is nothing better than a concrete foundation for a wooden silo. As for the silage affecting the concrete, there is not much danger. They should be washed inside with cement and water every year or two, and this will somewhat lessen any affect accruing from the action of acid in the silage upon concrete. Your suggestion regarding the height of the silo is very good, but how about the diameter? That is just as important. A silo 15 feet by 38 feet will contain, approximately, 135 tons. This would maintain about 37 or 38 mature cows for 180 days, consuming on an average 37 pounds of silage per day. During this 180 days, 50 cows would consume 180 tons, but you intimate that some of them are calves, which would lessen materially the quantity consumed. It might be wise in your case to make a silo 15 feet by 40 feet, and this would insure you sufficient, we believe, for your quantity of stock, provided there is a fairly good percentage of calves among

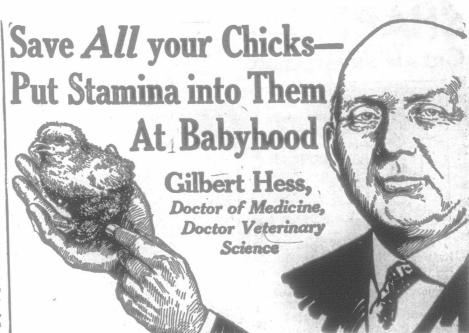
#### Barren Sows.

1. I have four sows. One of them. had nine pigs November 10th; the other three are over eight months old. There has been a boar with these sows all the time. I have fed them oil cake, shorts, mangels, mixed chop, offal from cattle; first one thing and then another. They have always been fat, but none of them have ever come in heat. Any advice which you can give me will be appreciated.

2. How much do mangels depreciate C. F. K. by freezing?

Ans.-1. Coburn writes that a sow is more liable to become barren because of over-feeding, and by reason of being too fat, than from any other cause. This may bring about a sluggish or non-acting condition of the ovaries, or a closing of some of the passages by an excess of fat. In such a case, the proper remedy is to get her back to suitable condition. Give a full dose of Epsom salts to move the bowels thoroughly. Afterward give all the exercise possible, and then cut down her feed so she will lose flesh. For ten days, give her five grains of iodide of potash night and morning. Stop for a few days if it makes her sick. Repeat in two weeks. Keep the boar away from her for a month, then put him in a pen next to her, where he can smell her through a slat partition. If this does not bring her around, she should be fattened and killed, as barrenness is often incurable.

2. That will depend upon how badly they were frozen, and whether decomposition sets in at once or is delayed. Tf they are fed as soon as they thaw, there will be very little difference.



The annual loss of young chicks in the United States is staggering. More than one-half the yearly hatch die before reaching pullet age—die through leg weakness, gapes and indigestion. Talk about conservation—think of the millions of dollars that poultry raisers could save by saving most of these chicks.

# Dr. Hess Poultry PAN-A-CE-A

Right from the very first feed. During my 25 years' experience as a doctor of medicine, a veterinary scientist and a successful poultry raiser, I discovered that, by using a certain nerve tonic and appetizer, leg weaknesscould be absolutely overcome; that the use of another certain chemical that is readily taken up by the blood would cure gapes, by causing the worms in the windpipe (the cause of gapes) to let go their hold and helping the chick throw them off. By combining these same ingredients with bitter tonics and laxatives, I found that I could control and invigorate the chick's digestion.

My Poultry Pan-a-ce-a helps put stamina into the chick, atrengthens and cleanses its system and sends it along the road to maturity, hardy and robust. Most of the biggest poultry farms in the United States, where chicks are hatched out by the thousand every day during hatching schson, feed my Pan-a-ce-a regularly.

Dr. Hess Poultry Pan-a-ce-a is the result of my successful poultry

Dr. Hess Poultry Pan-a-ce-a is the result of my successful poultry experience and scientific research in poultry culture—there is no guesswork about it. Ingredients printed on every package. Now

# Get-Your-Money-Back Guarantee

You buy Dr. Hess Poultry Pan-a-ce-a of your dealer. If it does not help your chicks grow, keep them well, make your poultry healthy and your hens lay, he is authorized to refund your money; you can't possibly lose—Pan-a-ce-a must pay or you get your money back. Costs a penny a day to feed 30 fowl. 1% lbs. 35c; 5 lbs. 35c; 25-lb. pail \$3.50 (duty paid). Buy of your dealer—Pan-a-ce-a is never sold by peddlers.

#### Dr. Hess Stock Tonic

Your stock need this tonic now to harden and condition them after the confined heavy feed ing of winter. There's nothing better to put horses in trim for hard spring and summer work. Milch cows need it badly just now to prepare them for the heavy milking season ahead. Dr. Hess Stock Tonic makes all stock healthy—keeps them toned up and expels worms. Sold under money-backguarantee. money-backguarantee, 25-lb. pail \$2.25; 100-lb. sack \$7; smaller pack-ages in proportion (duty paid). Send 2c for my new free Stock Tonic book.

> Dr. Hess -Instant Louse Killer

Kills lie on poultry and all farm stock. Dust the hens and chicks with ft. aprinties from the roosts, in the cracks or if kept in the cracks or if kept in the cracks or if kept in the tens will distribute ft. Also destroys bugs on cu-cumber squash and meian vines, cabbage worms, etc. sings on rose bushes, etc. Comes in handy sitting top cans, 1 h. 85c; 2 bz. 85c (duty paid). I guarantee it.

DR. HESS & CLARK, Ashland, Ohio



Elm Park Aberdeen-Angus and Clydes We have for sale a few two-year-old heifers by imported bulls and out of imp. cows bred to good bulls. We also have 3 three-year-old Clydesdale fillies, 2 two-year-old fillies and 2 yearing stallions. Five of them out of Lord Charming mares by King Seal, imp. Address: JAMES BOWMAN, Elm Park, Gueiph.

We have a select lot of females of all ages, and of the best Scotch families for sale. Also a March bull calf, red, little white, an Orange Blossom by Broadhooks Ringleader.

A. F. & G. AULD, Eden Mills, P.O. Guelph or Rockwood Stattone

SHORTHORNS
I have ten young Shorthorn bulls, some fit for service now. Part 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 prices of all are moderate. I have SHROPSHIRE and COTSWOLD rams and ewes of all valuable ages. Write for what you want. I can sult you'in quality and price.

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R. O. P. SHORTHORNS - R. O. P. JERSEYS For the first time we are offering for sale Shorthorn cows and heifers, and Jersey cows and heifers with official R. O. P. records, with their official records is high-class individuality.

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James Doudlas. Caladonia Octobic

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Pure Scotch and Scotch topped. Breeding unsurpassed. A nice selection in young
bulls, and a limited number
R. J. DOYLE. Owen Sound. Ont. R. J. DOYLE, Owen Sound, Ont. of thick, mossy heifers.



SHORTHORNS
Our present offering consists of Nonparell Lord = 87184 = . Dam inp. Dalmeny Nonparell 6th. 7 young bulls from 6 to 12 months old. 15 rows and helfers of choicest quality and breeding. A. J. HOWDEN & CO., COLUMBUS, ONTARIO. Myrtle, C. P. R. and G. T. R. Long-distance 'phone.



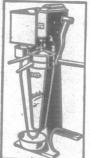
PLETCHER'S SHORTHORNS—Present offering

9

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APRI

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Patterned after the great world spinning on its axis, the revolving bowl of the TUBULAR has no fixed shaft and no fixed bearing. It is suspended by a flexible steel spindle,

its weight being borne by a resilient ball bearing, permitting the bowl to run practically without rocking, with ease, smoothness and precision. Increases the centrifugal force without increasing the speed. The TUBULAR skims close, is easily and quickly cleaned, is built sturdily in all of its few parts. All gears are enclosed. It is constructed to afford a lifetime of durability and consumes little oil.

# eccentric to its center of gravity.

Its suspension is natural and is not

The MILKER is in daily use under all widely varying conditions in dairies of different classes, in all dairying sections of the United States and Canada. The teat cup with the upward squeeze is almost human in its ability to adapt itself to the proper way of milking cows of different temper-



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**EFFICIENCY** LOW initial cost LOW cost of operation LOW upkeep cost. PRICE \$50 PER UNIT.

H. F. BAILEY & SON Sole manufacturers for Canada

## GALT :: ONT., CAN.

Woodholme Shorthorns I have a few more Scotch Bulls, of the low set thick kind, breeding unsurpassed, left for side, among others a 10 month's out of man size and fam, a bord header of the right kind. Write pic years wants G. M. Forsyth, North Claremont, Ont.

"OAKLAND" SHORTHORNS 50 head of good individuals to select from, 26 preeding from ites, headed by a fine kone let prize, and sweepenases but, just three only in 1st ervice, the or hash quality, and priced to soft from Elder & Sone of Hersall, Contarion Please they are The Farguer's Advo. 1st

#### Ouestions and Answers. Miscellaneous.

#### Girdled Trees.

Have a young orchard and the trees are girdled by rabbits. Could you, through the columns of your valuable paper, instruct me how to bridge-graft them, or is there any other more efficient method of saving the trees?

Ans.-Sometimes when trees are only slightly girdled, a bandage and a good coat of wax will bring the tree around again and ensure a perfect heal. However, if the wound projects into the wood, and the girdle is quite wide, some form of bridge grafting might be necessary. If there are any small branches or shoots coming up from the roots, they will be superior to scions cut for the purpose. Cut the end off of them so they will a little more than reach up to the upper part of the wound. Trim the lacerated bark down to the healthy bark of the tree, sharpen the end of the small sprout and insert it under the bark above the girdle. When it is cut longer than the wound, the bend of the sprout will keep it forced up, but it requires some other protection. If possible, make use of several sprouts that may be coming from the bottom. At the union, wax connecting layers and bandage them for protection. In case there are no sprouts coming from the roots, cut two small limbs or twigs so they will be a little longer than the width of the wound, after pruning the affected bark back to healthy, green bark, sharpen both ends of the scion and insert it under the bark. Treat the unions as before described. Bridge-grafting is not always successful, but it is advisable to try it rather than allow the trees to perish.

#### Millet and Pasture Crop.

1. What name have the seedsmen for the sweet clover mentioned in recent issues, and what are the main objections to its use in general?

2. For wintering cattle, would Japanese Panicle millet improve a mixture of oats and peas, or with oats along, and what amounts should be sown? Soil, loam, in average condition

3. What would be best to sow on a low piece of soil for two or three years' pasture, in which there is some common grass yet, cost and returns considered? 4. Does red-clover seed deteriorate when grown for years on same farm, soil in good condition, rolling loam and D. I. J.

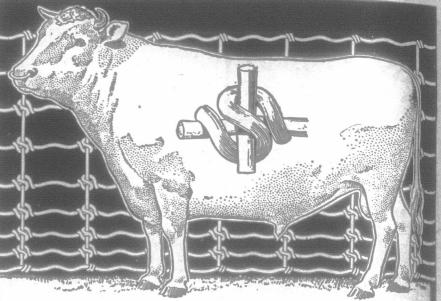
Ans.-1. None other than "sweet clover," except "Bokhara," unless you get into the scientific world, in which they are Melilotus Alba for white sweet clover, and Melilotus Officinales for yellow sweet clover. The main objection to its use in general is that stock have to be introduced to it before they thoroughly relish it. After this season's experimental work, we will have more informa-

tion regarding it.

2. If your soil is in good condition, a crop of oats and peas will not be improved materially by the addition of millet. It has been found by experiment that for fattening swine one-fifth more millet was required than wheat or barley to produce the same amount of gain. The one advantage that might accrue from its use would be that it would add variety to the ration, but we do not think that it can compete with oats, peas, barley, and corn, for growing stock. Experienced feeders have recommended as high as one-third millet to two-thirds barley and oats. The great advantage from millet is that it can be sown late on land that you have failed to seed with other kinds of grain or

3. We understand that you are breaking up this land and re-seeding it to pasture for a couple of years, in which case it would be wise to sow red clover, 6 pounds; alsike clover, 3 pounds; orand grass, 3 pounds, meadow fescue, 3 ounds: timothy, 3 pounds. If the land recolerately low, it might be advisable and a the orchard grass and timothy e contain extent, and substitute red-

I theyer seed should not deteriorate the same seed if you are following an religent system of rotation of crops



# The Bull Is Strong-But "Ideal" Fence is Stronger

They are in the same class and should be in the same field. The pedigree of "IDEAL" FENCE is known throughout Canada. It is not crossed with cheap wire, cheap material, or cheap labor to produce a cheap fence. "IDEAL" FENCE is made of ALL NO. 9 HARD STEEL, EVENLY GALVAN. IZED WIRE. From top to bottom "IDEAL" is all the same—it's an "IDEAL" thoroughbred with an "IDEAL" pedigree—it's "made-to-last." Made with the object of getting the blue ribbon from you, the user, doing the judging. Compare the weight of "IDEAL" FENCE with any and every other make. Compare the workmanship. Test it in the severest way you can devise You owe this to yourself before buying any fence.

You will find "IDEAL" offers you the strongest, most durable and most serviceable fence that money can buy and at the lowest price you should reasonably expect to pay, counting weight, length of service and genuine value for your

Ask your nearest "IDEAL" representative to show you "IDEAL" FENCE and to give you a price on your requirements. If you do not know him drop us a rard and we will send you our complete proposition by return mail. Write for Catalogue 121 which tells all about "IDEAL" FENCE. The McGregor Banwell Fence Co., Limited, Walkerville, Ont.

Springhurst Shorthorns

Shorthorn Cattle have come to their own, the demand and prices are rapidly increasing; now is the time to strengthen your herd. I have over a dozen heifers, from 10 months to 2 years of age, for sale; every one of them a show heifer, and some of them very choice. Bred in my great prize-winning strains. Only one bull left, a red, 18 months old.

HARRY SMITH HAY P.O.

**EXETER STATION** Shorthorns & Clydesdales

We have seven yearling bulls and seven bull calves from 7 to 12 months. All reds and roans, and of choice breeding. We have some extra good imported mares, for sale also some foals. If interested write for catalogue of their breeding.

W. G. PETTIT & SONS Burlington Junction, G. T. R.

FREEMAN, ONTARIO

SHORTHORNS IN OUR HERD

Our 1913 crop of 22 bulls are all sold, we have 20 extra bull calves coming on for the fall trade. For Sale—25 heifers and young cows; these old enough are bred to Right Sort (imp.), or Raphael (imp.), both prize winners at Toronto last fall.

MITCHELL BROS. Farm 1/2 mile from Burlington BURLINGTON, ONT.

Shorthorn Bulls, Cows & Heifers For Sale.—A number of them from imported Sire and Dam and from good milking families. Prices reasonable. Write or call on H. J. DAVIS :: :: WOODSTOCK, ONT.

SHORTHORN BULLS FOR SALE

Shead from 10 to 18 months, bred from cows which are from imported dams and sired by choicely bred bulls, prices are not high as I need the space for stabling cattle.

Shropshire and Cotswold ewes bred to imported rams.

BLAIRGOWRIE FARM

JOHN MILLER, Jr., ASHBURN, ONT

Shorthorn Bulls For SALE—From one up to one hundred head of Shorthorn bulls for sale, ranging from 6 months up to 3 years old. Car loads a specialty. Ship to any place in Canada or U. S. T. L. MERCER, MARKDALE, ONTARIO.

SALEM SHORTHORNS—Herd headed by Gainford Ideal, and Gainford
Perfection, sons of the great Gainford Marquis
We are generally in shape to supply your wants
Telephone and Telegraph. In either sex

Sprucedale Stock Farm

We ore now booking orders for LEICESTER LAMBS of either sex. A. Watson & Sons, St. Thomas, Ont. Breeders of Clydesdales and Hackneys, Holstein Cattle and Yorkshire Swine.

Glenallen Shorthorns

We have some of the best young bulls we ever bred, Scotch or Booth breeding, low, thick, mellow fellows of high ALLANDALE, ONTARIO.

R. Moore, Manager.



Shorthorns and Clydesdales

5 bulls of serviceable age, choice quality, some of them herd headers, sired by His Grace (imp.) = 69740 = and a number of All from imported stock

A B 3 W NOW. A big, good-quality horse; also four whoice fillies. cows and heifers. One stallion rising 3-year-old. A big, good-quality horse; also four choice fil All from imported stock. A. B. & T. W. DOUGLAS, STRATHROY, ONT. L.-D. phone.

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# **SHORTHORN**

Bulls all sold, choice females for sale. Clyde stallion, I wea stallion, big, best quality and breeding.

John Clancy, Cargill Limited, Cargill, Ont., Proprietors.

## **GLENGOW** SHORTHORNS

Still have a few choice bull calves, and ceveral real nice heifers of different ages. Columbus, Ont. WM. SMITH,

# SHORTHORN BULLS

from 9 to 14 months, large growthy fellows; 1 ligh-class herd header, 9 months, sired by a Duthie bull; a few good young heifers all priced worth the money. STEWART M. GRAHAM Undsay

Spring Valley Shorthorns
Alew of the best young bull prospects we ever had.
They will please you. Will sell females too. Visit
the herd; we think we can suit you. Particulars
application
EXILE BROS,
Telephone, Ayr

#### THE MANOR SHORTHORNS AND LINCOLNS

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

Shorthorns "Trout Creek Wonder" at the head of the herd which sumbers about 40 head. Heifers and bulls of the best quality for sale at reasonable prices. Ouncan Brown & Sons, RR 2, Shedden

Shorthorns and Swine -Have some ctoice young bulls for sale; also cows and heifers of show material, some with calves at foot. Also ANDREW GROFF. R. R. No. 1, Elora, Ont

Please mention "The Farmer's Advocate."

Questions and Answers. Miscellaneous.

Tuberculosis in Fowls.

My hens have some disease. They appear quite healthy and are in good flesh; heads red, and laying well. For a few days before they die they refuse to eat and want to get away by themselves, and in the morning we find them dead. Opening their bodies, we find the bowels full of blood, and the liver enlarged to three times the normal size. It appears just like clotted blood, and the part of the liver that was not like blood, was covered with white spots. Am feeding my hens once a day on barley and once on oats, with a soft mash of potatoes and provender at noon. They also have turnips to pick, and I keep them supplied with gravel and oyster-shells. Please prescribe.

Ans.-From the symptoms herein set forth, we judge that your fowls are suffering from tuberculosis. This disease has been mentioned in almost every number of the paper, and by referring back, you may notice recommendations for freeing the flock from it. However, there is really no measure that can be adopted, by the use of drugs, that will destroy this disease. You must relentlessly clean up the pens, isolate all affected birds, and if possible divert their runs from those which they have recently inhabited. After thoroughly cleaning the pen, whitewash it, or spray it with a whitewash mixture containing a five-percent. solution of carbolic acid. writers have claimed success from burning sulphur in the pens with the doors and windows closed. We cannot see what direct advantage can accrue from this operation, but it is worth trying along with the other remedies.

Distemper in Horses.

1. A two-year-old mare coughs a great deal, and there is a discharge of matter from her nose. There is a lump beginning to form under her jaw. Is this distemper?

2. What treatment would you ad-

3. Are the other horses in the stable liable to catch it? If so, would there be any way to prevent them?

4. Are horses subject to colic? We feed oats only, besides the hay.

5. Would you advise us to add bran

with the oats? 6. Are those remedies for colic you see advertised, of any use? P. D. C.

Ans.-1. The symptoms are those of distemper.

sists in placing the patient in a comfortable, well-ventilated stall; steam the nostrils well two or three times daily by holding the head over a pot of boiling water; rub the throat twice daily with equal parts raw linseed oil, oil of turpentine and spirits of ammonia, for two days. In the meantime, apply warm poultices an hour after each rubbing, and do not allow them to get cold. Feed on soft food, and as soon as abscesses form, lance, and allow escape of pus. Give internally twenty drops carbolic acid three times daily. When complications occur, or the disease appears in what is called irregular strangles, each case requires treatment according to symptoms, and this can be given only by the personal attention of a veterinarian.

3. It is contagious, and the other horses in the same stable are quite likely to contract this disease. In fact, it is aimost impossible to prevent it. The only way to do so would be to put the diseased horses or the healthy horses in other quarters and keep them entirely separate, also not allowing them to drink from the same tank, or in other

ways be associated. 4. All horses are not subject to colic, but treatment or improper feeding sometimes bring about digestive troubles

which result in colic. 5. A mixture of bran with the oats would have been advisable indeed, and if they are working horses, on heavy feed, it would be wise to give them a bran mash on Saturday night and Sunday morning. Start a part of your grain ration Sunday noon, and by Monday morning have them up to the regu-

lar ration again. 6. We have never tried them.



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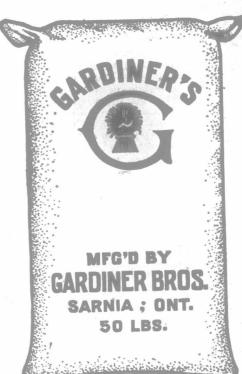
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# Poultry Specialties

DIRECT TO YOU FREIGHT PAID.

Write NOW for our prices on 500-lb. lots - assorted orders, of any of the following:



Baby Chick Food Chick Food Egg Mash Scratch Food Alfalfa Cut Clover Alfalfa Meal Oyster Shell Crystal Grit **Beef Meal Beef Scrap** . Poultry Remedies

These feeds are made from choice sweet grains, scientifically blended to give the maximum result for the least cost. Hundreds of poultrymen are finding that it pays to buy their poultry feeds direct from GARDINER BROS., the manufacturers. A trial order will make you a regular customer. Write to-day for particulars.

# Gardiner's Calf Meal

There is money for you in the Calf Meal proposition. We are manufacturers of the famous Gardiner's Calf Meal, the ideal substitute for milk or cream for raising young calves. Have you tried it? We are gaining new customers every day.

Write for our special prices on a trial order. Freight prepaid to your nearest station.

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# Butter Worker

Adopted by the best dairies in Gt. Britain and Canada. Makes the butter firm-even-consistent all through. Results in better butter and bigger profits!

Sold by dealers everywhere. Three sizes — 14 in., 17 in. and 20 in. wide. MAXWELL'S, Limited St. Mary's, Out. 4

The first remedy to cure Lump Jaw was Fleming's Lump Jaw Cure and it remains today the standard treatment, with years of success back of it, known to be a cure and guaranteed to care. Don't experiment with substitutes or imitations. Use it, no matter how old or bad the case or what elsa you may have tried—your money back if Firming's Lump Jaw Cure ever fails. Our fair plan of selling, together with exhunstive information on Lump Jaw and its treatment, is given in Fleming's Vest Pocket.

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#### Gossip.

LAKESIDE AYRSHIRE BULLS. The Ayrshire stock of the Lakeside Farm, Philipsburg, Que., which is owned and operated by Geo. H. Montgomery, Dominion Express Building, Montreal, is constantly kept before the stock breeders of the country through the columns of this paper, but they have recently gotten out a catalogue describing some of the young bulls which are now for sale. What makes these young Ayrshire bulls particularly valuable is the richness of the breeding, which traces back to the original stock bull, The Don, which was a winner at the Pan-American Exhibition in Buffalo, and at leading Canadian shows. Another noted sire used in the herd was Barcheskie Cheerful Boy 28879 (imp.). He was by Howie's Conductor, and proved a success in the Lakeside herd. Morton Mains Planet 33279 (imp.) is one of the more recent sires connected with the herd. He was a winner at all leading Canadian shows as a yearling, and after being used on Lakeside Farm, was sold to go to Alberta, where last year he captured first at all the leading shows in the Western circuit. At present, the herd is headed by Auchenbrain Sea Foam, and combines in his veins the blood of the leading herds in Scotland. It is generally considered that he is one of the best-bred bulls ever brought into this country.

Nine young valuable bulls were listed in this catalogue, but since it was compiled, two have already been sold, but there are some yet remaining which would be valuable herd-headers for Ayrshire herds throughout the country. Look up Mr. Montgomery's advertisement in another column and write him for this

WOODBINE BREEDING FARM. Woodland Farm, near Guelph, Ont., for many years one of the most noted Clydesdale-breeding farms in Canada under the ownership of O. Sorby, and now owned by R. Ballagh & Son, late of Elkton, Michigan, is under the new ownership still the home of an especially well-selected stud of Clydesdale and Hackney horses, Shetland ponies, and herd of Brown Swiss dairy cattle. The latter, as is well known, are natives of Switzer-land, the land of Alpine fame. They are an extremely hardy breed of cattle, with strong, robust constitutions, and great assimilative powers. Large in size, they take on flesh readily, and are prolific producers of milk. Several of Mr. Ballagh's herd are giving 50 lbs. of milk a day that tests 4.2 per cent. of butterfat. At many of the large shows on the other side of the line, such as Detroit, Port Huron, Bay City, Flint, etc., in strong competition, representatives of this herd invariably carried off the leadhonors The general appearance of this herd would indicate that the muchdesired dual-purpose cow is much nearer the ideal in the Brown Swiss than in any other breed, although they are essentially considered as a dairy breed. Another year, and young stock will be for sale. At the head of the Clydesdale stud are the two noted sires, King's Seal (imp.), and Baron's Charm (imp.). The former is a bay son of that famous sire of champions, Rozelle, dam by Rosewood, grandam by Darnley. He is a horse of strong draft character, and a noted sire in Wellington County. Baron's Charm (imp.) has also proven a most impressive sire, stamping his get with big size and beautiful quality, up to a ton weight himself, with the best-wearing kind of bone, ankles and feet, he has left many winners at leading shows. Several registered mares, imported and Canadian - bred, make up an especially strong stud. Warwick Model (imp.), the noted prizewinning 'Hackney stallion, is at the head of the Hackney stud, which comprises four registered mares in breeding, besides several young ones, of which, for sale, are a right nice pair of mares, one gelding, and one young stallion, sired by Warwick Model (imp.), and out of Miller's Daughter (imp.). Shetland's number about a dozen, blacks, bays and spots. Chief stallion in service is the Guelph first-prize winner, Shadelawn Royal. Also in service is the Guelph second-prize winner, King Domino, a trim, neat little pair. Another beautiful little stallion for sale is a bay two-year-old, got by the \$3,000 Hornce; also for sale are a pair of spotted geldings just broken, and two

mares rising one year.

# International Harvester Cream Separators



THE I H C LINE
GRAIN AND HAY
MACHINES
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**Binder Twine** 

DAIRY farmer who does not use a cream separator is losing up to \$15 per cow per year. Complete your dairy equipment by the purchase of an International Harvester cream separator—Lily, Bluebell or Dairymaid. These separators skim closely—leaving barely a drop of cream in a gallon of milk—and they will do it for years.

These machines are furnished with pulleys for the

These machines are furnished with pulleys for the use of power. Belted to a small I H C engine, you have the best outfit it is possible for you to buy. Note the low supply can on I H C separators, the height of the milk spout which allows a 10-gallon can to be used for the skim milk, the strong frame with open base which can be kept perfectly clean, and the dozen other features which make these and the dozen other features which make these I H C machines the best.

Your local dealer should have one of these machines on sale. If he has not, write us before you buy and we will tell you where you can see one; also send you an interesting book on separators.



International Harvester Company of Canada, Ltd At Hamilton, Out.; London, Ont.; Montreal, P. Q.; Ottawa, Ont.; St. John, N. B.; Quebec, P. Q.



Whether you have but one cow, or if you have fifty cows, we have a high-grade Cream Separator, suitable for your requirements, at a price you can afford to pay.

We send you a machine, on FREE TRIAL, anywhere in Ontario or Eastern Canada, and prepay the freight. Thoroughly guaranteed. LOW PRICES. EASY PAYMENTS. You take no risk whatever, for you settle for it only if ortifical for it only if satisfied.

Send for Circular "A" to-day, giving our Free Trial Offer, prices, etc. Agents wanted.

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#### COLUMBIA-the Battery that Pays Dividends Costs no more lasts longer

Columbia patented batteries are sold all over the world because the world wants them. It banks on their quarter century repute—their honest work, long life, steady action. business battery, say COLUMBIA and insist. Maker's name on every cell.

Made in Canada by
CANADIAN NATIONAL CARBON CO., Limited
Toronto, Ontario
Convenient Fahnestock spring clip Binding Posts—no extra charge.

A select lot of young bulls, all ages, sired by the following: Barcheskie Cheerful Boy (Imp. 28879 (7731); Hobsland Bonnie Boy (Imp.) 33275 (8776); Morton Mains Planet (Imp.) 33279 (8774); Auchenbrain Sea Foam (Imp.) 35758 (8865).

Imported dams. Record of Performance dams.

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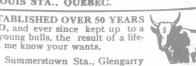
STOCKWOOD AYRSHIRES

Stocks of all ages for sale, one 12 months eld bull (Imp.) in dam will make a winner for someone; also bull calves from a week to two Mee, and a half-brother of Brae Rising Star, highest priced bull in Scotland; prices and terms one.

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GLENHURST AYRSHIRES ESTABLISHED OVER 50 YEARS high standard. We can supply females of all ages and young bulls, the result of a lifetime's intelligent breeding; 45 head to select from. Let me know your wants. JAMES BENNING, WILLIAMSTOWN P.O.



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Absolutely on Approval. The bowl is a sanitary marval, easily thoused. Different from this picture, which illustrates our large capacity machines. Shipments made promptly from WINNIPEG, MAN. TORONTO, ONT., and ST. JOHN, N. B. Whether your daily is large or small, write for our handsome free catalog. Address:

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-the result of 33 years experience in making Pitching Machines. nsists of three slings and sectional pulley for drawing ends together. Easy to operate,

quick to work, and exceptionally strong.
We make all kinds of Pitching Machines
—Swivel Carriers and Tracks, Slings,
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M. T. BUCHANAN & CO., INGERSOLL, ONT.2

We also manufacture Steel Cow Stalls and Positive Lock Cow Stanchions.

Prilly, 7 day butter record Beauty Pietertje 30.51 Lilian Walker Pietertje 30 01 30.22 " Ruby Walker Pietertje -27.85 " Segis Walker Pietertje -32.92 " Buttercup Clothilde Pietertje-31.81 Mary Walker Pietertje -

31.63 " Marion Walker Pietertje These are the Champion 3, 4 and 5

Generations of the

#### HOLSTEIN

Buy a son of King Segis Walker from daughters of Pontiac Korndyke and get connected with this family.

A. A. FAREWELL, Oshawa, Ont.

#### ELMCREST STOCK FARM HOLSTEIN FRESIANS AND CLYDESDALES

Present offerings—a two months old bull calf from a 22.50 lb. cow, also a few good record of merit cows. In registered Clydesdales—how would a nice typey grand-daughter of Baron's Pride 3-year-old m May, due to fall in June guit you? Everything tn May, due to fall in June, suit you? Everything marked dollars cheap for o few weeks. Write or W. H. CHERRY, Garnet, Halimand Co., Ont.

#### Woodbine Holsteins

Young bulls and bull calves, sired by Duke Beauty Pietertje; sire's dam's record 32.52 lbs. butter, and his two grand-dams are each 30-lb. cows, with 30-lb. daughter, with 30-lb. granddaughter. Three generations of 30-lb. cows. If you want a bull that will prove his value as a sire, write

A. KENNEDY & SON, R.R. No. 2, Paris, Ont. Stations: Ayr, C.P.R.; Paris, G.T.R.

#### **HOLSTEIN - FRIESIAN** ASSOCIATION OF CANADA

Applications for registry, transfer and membership as well as requests for blank forms and all information regarding THE FARMER'S MOST PROFITABLE COW should be sent to the secretary of the Association. W. A. CLEMONS, ST. GEORGE, ONT.

The Maples Holstein Herd Headed by Prince Aaggle Mechthilde. Present dering: Bull calves born after Sept. 1st, 1913. If sired by Prince Aaggle Mechthilde and from Secord of Merit dams. Prices reasonable.

WALBURN RIVERS,

E. R. No. 5, Ingersoll. Ontario

#### SPRINGBANK HOLSTEINS

Two young bulls, one 12 months, and one over two months, for sale, from good milking strains at low agure, for quick sale, Also a few choice grade beffers. WILLIAM BARNET & SONS R.R. No. 3.

Holsteins, Young herd headers. Just now beaders up to 15 mos. of age, closely related to our feronto Dairy Test Champion, and sired by the dehly bred, Imperial Pauline De Kol.

8. W. Walker & Sons, Utlea P. O. Manchester Station

HOLSTEINS AND YORKSHIRES
Minster Farm offers a bull fit for service, from 8
daughter of Prince Posch Calamity Bleske (2 R.O.P.
and 2 R.O.M. daughters) and a son of Korndyke
Queen Pietertje, whose sister held world's records
for 2 and 3 years of age. For particulars, write.
Richard Honey & Sons, Brickley, Ont

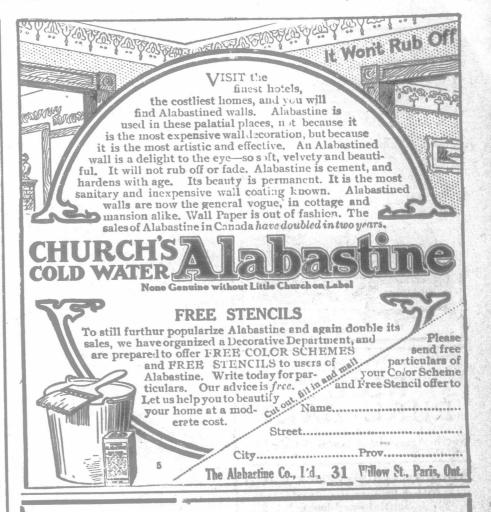
#### Gossip.

A. A. COLWILL'S TAMWORTHS AND SHORTHORNS

Another annual visit to the noted Newcastle Stock Farm of A. A. Colwill, Newcastle, Ont., by the field representative of "The Farmer's Advocate," proved but a repetition of that of many years past, inasmuch as that the large and famous high-class herd of Tamworth swine, English-bred Shorthorn cattle, and stud of Clydesdale horses, were found up to the usual standard of merit and wintering in nice, thrifty, breeding condition. No comment is necessary on the quality of the Tamworths which for a quarter of a century have held a leading position in the honor roll as one of the best herds in Canada. The brood sows, as for several years past, are daughters and granddaughters of the famous old champion, Colwill's Choice, the granddaughters being daughters of the big, typical hog, Imp. Cholderton Golden Secret, a line of breeding absulutely unsurpassed in this country. Mr. Colwill is now offering a particularly choice stock boar, a three-year-old son, of Imp. Cholderton Golden Secret, and out of a daughter of Colwill's Choice. This hog has the size, type and finish that win at the big shows. He is a good one. There is also on hand several young boars old enough for service, and young sows of breeding age, as well as younger ones of both sexes. In Shorthorns there are four young bulls, English - bred on both sides, out of cows that can pay their way at the pail; also a limited number of heifers one and two years of age, the latter in calf to the present stock bull, Broadhooks Prince, a combination of Broadhooks blood on the sire's side, and Wedding Gift on the dam's side. Mr. Colwill is also offering a nice registered Clydesdale filly rising four years, and an 1,800-lb. Clyde gelding. Write Mr. Colwin your wants.

#### WILLOWBANK HOLSTEINS.

Some remarkably attractive breeding is found in the Willowbank dairy herd of Holsteins owned by Collver V. Robbins, of Riverbend, Ont., situated in the County of Welland, within easy reach of the town of Welland, and about four miles from Fenwick Station on the T. H. & B. railway, and Perry Station on the M. C. R. As a breeder of Holstein cattle, Mr. Robbins has laid a foundation that ensures success, infusing as he has through his herd-headers, much of the blood that has made the Holstein history of the day. The majority of the les are young, three and four years of age, daughters of Sir Inka of Riverside, a son of Johanna Rue 4th's Lad, whose five nearest dams have records averaging 22.86 lbs. of butter in seven days. The dam of this bull was Inka Mercedes De Kol 2nd, with a two-yearold record of 14.9 lbs., and an average milk yield of 53 lbs. a day. The first of this bull's daughters to be tested made a record of 18.12 lbs. under very unfavorable circumstances. On his daughters was used a son of the intenselybred bull, Count Hengerveld Fayne De Kol, a brother to the late world's champion, Grace Fayne 2nd's Homestead, 35.55 lbs., and a son of Pietertje Hengerveld Count De Kol, with over 100 A. R. O. daughters, 30 of them with records of 30 lbs. and over. Now at the head of the herd is King Korndyke Inka De Kol, a son of the world's greatest Holstein bull, Pontiac Korndyke, three whose daughters broke world's records in succession, twelve of his daughters have records ranging from 30.48 to 38.03 lbs., and 66 other daughters are in the A. R. O. The dam of this bull has a three-year-old record of 20.87 lbs. It is surely something for intending purchasers to think about, a chance to get heifers descended from the above two grandly-bred bulls, and in call to a son of the great Pontiac Korndyke. Again, when it is remembered that 19 lbs. for a three-year-old, up to 25 lbs. for mature cows, are the average, but not at all the limit, of the tested females in the herd, it is all the more interesting from the purchaser's standpoint when wanting females or a young herd-header, of which there are several of each for sale. Write Mr. Robbins your wants to Riverbend P. O., Ont.



# Important Auction Sale

**EXTRA HIGH-CLASS** 

### Holstein-Friesian Cattle THURSDAY, APRIL 9th, 1914

60 head including my two herd sires King Isabella Walker No. 8257, a bull whose three nearest officially tested dams, a sister of his dam and two sisters of his sire, average 30.34 and his dam has a semi-official yearly record of over 22,000 pounds of milk and 990 pounds butter

The junior sire King McKinley Lyons No. 17729 has 7 nearest dams in the first four generations averaging 29.60 butter, his maternal gr. dam is the dam of King Segis, the greatest nine-year-old sire. There are twenty daughters of the senior sire in this sale, 17 mature females with records from 16 to 24 lbs., three-year-olds from 17 to 22.32 lbs., two-year-olds from 13 to 20 lbs. females are sired by such sires as King Segis, King Fayne Segis, Sir Aaggie Beets Segis, Prince Hengerveld of the Pontiacs.

Every animal will be sold without reserve as the owner has no way of keeping the herd over another Season owing to lack of pasture.

SALE WILL COMMENCE AT 1 p.m.

Col. B. V. Kelly, Auctioneer Syracuse, N.Y.

P. J. Salley, Proprietor Lachine Rapids, Que.

# Fairview

Offers for sale: A son of Rag Apple Korndyke 8th, out of a daughter of Pontiac Korndyke, with a record of 27.72 lbs. in 7 days, averaging 4½% fat. Granddam has a record of 29 lbs. Calf is nearly ready for service. Write me for description and breeding.

H. Dollar, Heuvelton, N.Y. Prescott, Ont.

Senior herd bull—Count Hengerveld Fayne De Kol, a son of Pietertje Hengerveld's Count De Kol and Grace Fayne 2nd. Junior herd bull—Dutchland Colantha Sir Mona, a son of Colantha Johanna Led and Mona Pauline De Kol. Third bull—King Canary Segis, whose sire is a son of King Segis Pontiac, and whose dam is 27-lb. three-year-old daughter of a 30-lb. cow. Write for further information to—

E. F. OSLER,

BRONTE, ONT.

The only two world record Holsteins in Canada are owned by us. There are only three cows in the World that have made over thirty pounds butter, three years in succession, one of them is owned by us. The only bull in Ontario, whose dam has given 116 lbs. milk a day, and made 34.60 lbs. butter, in seven days, is owned by us. We have young bulls and females for sale, bred on same lines as our Champions.

D. C. Flatt & Son Long Dietance 'Phone R.R. No. 2, Hamilton

FOR SALE—Male or female. Herd sire, Prince Hengerveld of the Pontiacs, son of King of the Pontiacs. A few choice females bred to above sire. "Hamilton Farms" St. Catharines, Ont.

F. HAMILTON Brampton Jerseys We are doing the largest business we ever did, chiefly with our old customers, and helfers from sires with tested daughters. Several imported cows and B. H. Bull&Son, Brampton, Ont.

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Here's a grinder that puts a sharp cutting edge on farm tools without injuring them. Never wears humpy. Anyone can use a

### CLEVELAND Grindstone-

made from the only Berea stone, famous for its even grit, just right for farm use. The standard by which all grindstones are judged. 9 out of every 10 makers of farm implements use CLEVELAND GRINDSTONES in their own shops. They know hat grinds best. We guarantee every stone to do good work. If it doesn't, we refund your money.



For Cooking, Butter, Cheese, Table and all

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goes furthest. North American Chemical Co., Ltd.
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Aberdeen-Angus Cattle Southdown Sheep Collie Dogs

Four litters sired by Imp. Holyrood Marquis are expected shortly, three of them from imported bitches. Order now if you wish to secure a choice ROBT. McEWEN, Byron, Ontario Near London

#### OXFORD DOWN SHEEP

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

Peter Arkell & Sons, Teeswater, Ont.

# CATTLE AND SHEEP LABELS

Size Price dos. Fifty tags
Cattle.... 75c. \$2.00
Light Cattle 60c. 1.50
Sheep or hog 40c. 1.00
No postage or duty to pay. Cattle
sizes with name and address and
aumbers; sheep or hog size, name and numbers.
Get your neighbors to order with you and get better rate. Circular and sample mailed free.
F. G. James, Bowmanville, Ontario

#### MAPLE LEAF BERKSHIRES for sale at reasonable prices, boars fit for service, also young pigs ready to ween; boars and sows 2 and 4 months old, bred from imported stock. Satisfaction guaranteed. J. Lawrence, Woodstock, Ont. R.R. 8

Yorkshire Sows For Sale, four choice Yorkshire sows, bred; show stock, weight about 300-lbs.
GEO. D. FLETCHER, R.R. No 2., Erin, Ont.
Erin Sta., C.P.R.

### **TAMWORTHS**

We are now booking orders for Spring pigs, also can supply White Wyandotte settings \$1.00 per 13.

Herbert German : St. George, Ontario

Morriston Shorthorns and Tamworth-bred from the prize-winnin, herds of England. Have two choice young bull-for sale, 10 months old, out of large, deep-milkin, cows and also some choice cows. Tamworths both cows and also some choice cows. Tamworths besexes. CHAS. CURRIE, Morriston, Ont.

TAMWORTHS—Some choice young sows, bred, for April and May farrow; also a few boars. Write for particulars.

JOHN W. TODD

R. R. No. 1

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Corinth, Ontario

Cloverdale Large English Berkshires Cloverdale Large English Berkshires may be mee Lang the live Berkshire man. He is always prepared to Jurnish anything in Berkshires. Write come and inspect. Hampton, Ont., Durham Co.

Hampshire Swine 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, Ont.

Duroc Jersey Swine Twenty-five sow a few boars ready for service; also one Jersey bul.

Il months, and two bulls, 6 months old, out whigh-producing dams.

Mac Campbell & Son.

Northwood, Owe

TAMWORTHS both sexes, quality and breeding the best. We believe we can please you.

Codington, Ont. Gossip.

GEO. D. FLETCHER'S SHORTHORNS. High-class individuality, the most popular and heavy-fleshed tribes and liberal feeding, has for many years been the order of things in vogue in connection with the splendid herd of Scotch Shorthorns at the farm of Geo. D. Fletcher, R. R. No. 2, Erin, Ont. (Erin Station, C. P. R.). Although Mr. Fletcher carries a large herd of Shorthorns, the superior quality of the herd is so well known that the annual increase never goes begging for purchasers, but is early picked up by parties looking for the better kind. Mr. Fletcher has made a success of breeding Shorthorns, and probably the greatest secret of his success was in his selection of stock bulls. His preference was always for a bull fully developed, and that had been proven a success, Imp. Joy of Morning, Imp. Benachie, and now, Imp. Royal Bruce, a Bruce Mayflower, are those that have been used in more recent years. Some particularly strong heifers are now for sale, as well as one nice, thick, young bull. Mr. Fletcher is also offering a right nice pair of ten-months-old Yorkshire sows, due to pig in April, and one young Clydesdale stallion rising three years of age, with imported sire and dam. Write Mr. Fletcher when in want of any of the lines of stock mentioned, well as S. - C. White Leghorns, of which, for sale, are a number of last year's cockerels.

ROBT. MILLER'S SHORTHORNS.

A visit to the splendid herd of upwards of a hundred head of high-class modern Shorthorns, owned by Robt. Miller, of Stouffville, Ont., was the privilege of a representative of this paper a few days ago. Born on the far-famed Thistle Ha Farm, Mr. Miller's whole life has been spent among Shorthorn cattle, and few there are his equal in sizing up the relative merits of the breed he loves so well, and the large, ever-increasing and widespread trade he enjoys is evidence that hosts of breeders avail themselves of his expert knowledge when purchasing a herd-header or stocking up with a few breeding females Never before in our many years' intimate acquaintance with this herd has the standard been so high. This, particularly among the younger ones, can be largely attributed to the extraordinary transmitting qualities of the famous stock bull, Superb Sultan, the Cruickshank Secret-bred son of the great Whitehall Sultan, weighing now 2,600 lbs., his massive rolls of flesh laid on as evenly and smoothly as though done with an artist's hand. He is one of the greatest sires of the present day. Each succeeding crop of calves got by him seems to be a little better than the last, and it is no exaggeration to say that the dozen or more bull calves now nursing are decidedly the best lot ever bred in this noted herd. Any attempt to individualize the many choice breeding cows is out of the question, but mention may be made of the great cow, Jubilee Maid 2nd, a Cruickshank Butterfly, and the dam of the famous bull. Butterfly King, now at the head of the Alberta Dairy Shorthorn herd, and which has more daughters qualified for the official R. O. P. than any other three bulls in Canada. Also in the herd are two daughters and one granddaughter of this great cow. Although a large number of young bulls have been shipped this winter, there are still nine left from ten to eighteen months of age, richlybred, and straight, level young bulls. Lately, two have gone to British Columbia, four to Utah, one to Alberta, one to Manitoulin Island, three to Agricultural Societies in Quebec, and to Harry Fairbairn, of Thedford, went a thick, mellow young bull of the popular Augusta tribe, a bull that should be heard from later. Of particular interest to parties looking for breeding females are a number of young cows about due to drop their second calves, and a numher of two-year-old heifers in calf. These are an extra nice lot that will strengthen any herd. Mr. Miller is preparing for more extensive breeding of Clydesdales, having sold all his big, heavy geldings, and replaced them with registered mares. In Welsh ponies there is always on hand some right nice ones.



# Interested in Roofing?

HEN write to-day for literature and valuable information on the Roofing Question. We're prepared to prove our claim that Galt Steel Shingles make the best and most satisfactory roofing you can buy. They are handsome, durable, water-tight, wind-proof and fire-proof. You do not need to employ any help to lay Galt Steel Shingles. Any man who can handle a hammer can lay them with one-half the cost of laying wood shingles and one-sixth the cost of laying slats.

Write NOW. Don't put it off and forget. Simply write the word "Roofing" on a postcard, together with your name and address.

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150 Stone Road, Galt, Ontario. Cor. Richard and Pine Sts., Winnipeg, Man.

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I have the best lot of lambs I ever bred. I have plenty of show material, bred from the best stock procurable in England. Order early if you want the best. Ram lambs, shearlings and ewe lambs Yorkshires of all ages.

J. A. CERSWELL, BOND HEAD P. O., ONT.

Long-distance 'phone.

Special SHROPSHIRE EWES—40 imported shearling ewes and 40 home-bree shearling and two shear ewes. These ewes have been bred to choice imp. rams. One crop of lambs should nearly pay for them at prices asked Also some good ewe lambs at a low price.

JOHN MILLER, Brougham, Ont Claremont Stn. C.P.R., 3 miles. Pickering Stn. G.T.R. 7 miles.

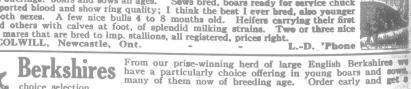
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We have the Champion Herd of Canada. We import more Hogs every year than all other combined; at all times we can supply either sex of any age desired. Write us. HASTINGS BROS., Crosshill P.O., Newton G. T. R., Linwood C. P. R.

NEWCASTLE TAMWORTHS, SHORTHORNS AND CLYDESDALES
Present offerings: boars and sows all ages.

Sows bred, boars ready for service chuck full of imported blood and show ring quality; I think the best I ever bred, also younger ones of both sexes. A few nice bulls 4 to 8 months old. Heifers carrying their first calves and others with calves at foot, of splendid milking strains. Two or three nice fillies and mares that are bred to imp. stallions, all registered, prices right.

A. A. COLWILL, Newcastle, Ont.



S. DOLSON & SON Norval Station, Ont. Sunnybrook Yorkshires and Holsteins a few weeks old up to a few we

breeding age, sired by our champion boar Eldon Duke (32228), and out of prizewinning sows. Almorichly-bred Holstein cattle of all ages. WM. MANNING & SONS, WOODVILLE, ONTARIO, richly-bred Holstein cattle of all ages. Grasshill Sta., C. P. R. and G. T. R.

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My Berkshires for many years have won the leading prizes at Toronto, London and Guelph. Higheleres and Sallys the best strains of the breed, both sexes any age. Adam Thompson, Shakespeare P.O. & Stn.



ELMHURST LARGE ENGLISH BERKSHIRES From our recent importation of sows, together with the stock boar Suddon Torredos, we can supply select breeding stock, all ages. Satisfaction and safe delivery guaranteed.

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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
best British herds. Write or call H J. DAVIS, Woodstock, Ont.

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Have a choice lot of sows in pig
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C. P. R. and G. T. R.



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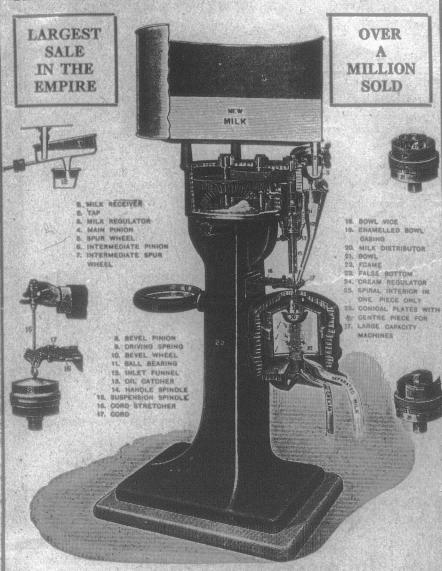
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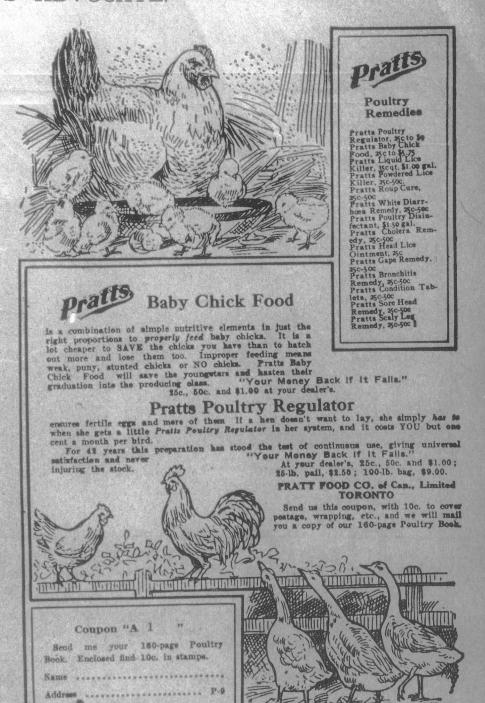
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Learn about the 17 special patent features in my SUPERIOR EQUIPMENT, found in no other make. Get my big book, it is free. Send a post card now to GEO. P. MAUDE, Manager Superior Barn Equipment Company Fergus, Ontario

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THE INSURED PAYS THE LOSSES

The company is the trustee only, collecting premiums from you and pay-

ing out here and there, when there is a loss.

If every building insured in your company were properly equipped with Lightning Rods your premiums would be less. Because lightning is the big source of loss to farm property. In 12 years 40 companies in Ontario paid 66¼ per cent. of all their barn claims on account of damage by lightning.

Prof. Day, of the O. A. C., in his speech at the Winter Fair at Guelph last December, said: "That out of every thousand dollars worth of damage done to unrodded buildings by lightning, \$999 would be saved if these buildings were properly rodded."

The less your company loses the less your premiums

The less your company loses the less your premiums.

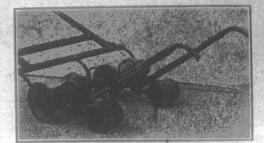
If your company lost ten cents instead of \$100 on 66½ per cent. of their fires, it would affect you, wouldn't it? Did you ever figure it out that way?

Our rods are on thousands of buildings—and no building equipped with them has ever been damaged. We are proud of that record. We would like you to see our rod. Drop us a card for sample.

The Universal Lightning Rod Company HESPELER, ONTARIO

# THE CHAMPION TURNIP SEEDER

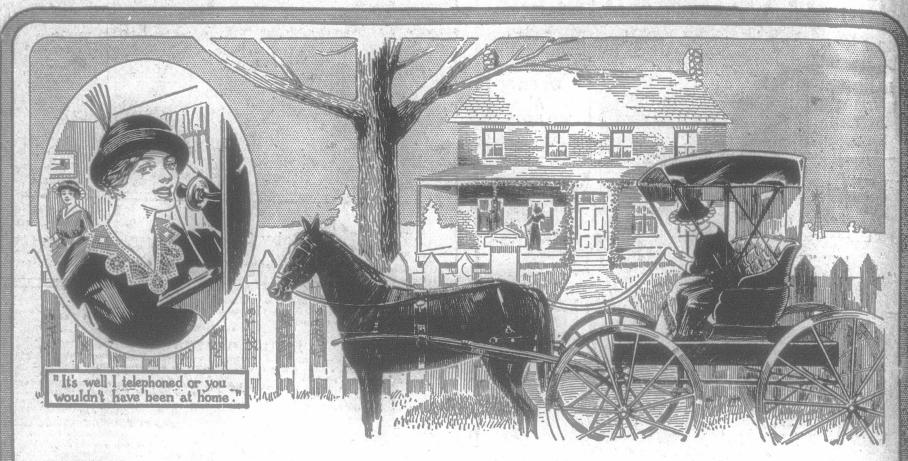
A Strong, Handy Implement



This Seeder is made both single and double, and in either form is without an equal as a compact handy implement. The seed-box is run by a friction gear, and can be stopped and started instantly without stopping the horse. It can be regulated to sow any desired quantity of turnip, mangold or carrot seed.

Write for Catalogue, fuller information and price list to

BRUCE AGRICULTURAL WORKS, Teeswater, Ontario



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In case of fire or accident you can summon your neighbors, immediately, to your assistance. You can get your doctor in a hurry in case of illness.

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A telephone will lighten your It will brighten your work. social life.

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