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Ontario and Statistics
Dept. of Agriculture
Dec 31, 09

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VOL. XLV.

LONDON, ONTARIO, JUNE 9, 1910.

No. 924

Semi-Steel Fire-Pot—Not Gray Iron

A FIRE-POT of a furnace should be able to endure tremendous heat, and to repel the attacks of sulphur fumes.

The material commonly used for a fire-pot is gray iron. The Sunshine fire-pot is Semi-Steel.

Now, avoiding technical terms, gray iron has what may be called "open" pores. Through these "open" pores the destructive sulphur fumes attack the iron and hasten disintegration.

On the other hand, Semi-Steel is a close-grained material, with a smooth-as-glass surface, which seals or "closes" up the pores. Semi-Steel easily repels the attacks of sulphur fumes. Thus the life of the Sunshine fire-pot is greatly prolonged.

A Semi-Steel fire-pot weighs 20

per cent. heavier than the same size and pattern in gray iron. It is, therefore, better able to endure tremendous heat.

Semi-Steel is made by an exclusive McClary process. You can only get a Semi-Steel fire-pot with a McClary furnace. That is one strong reason why you should have the Sunshine installed in your home.

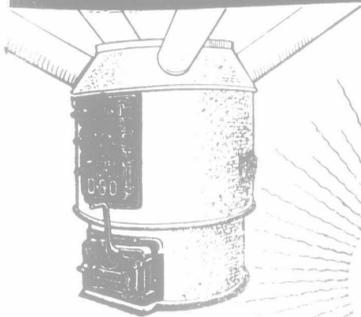
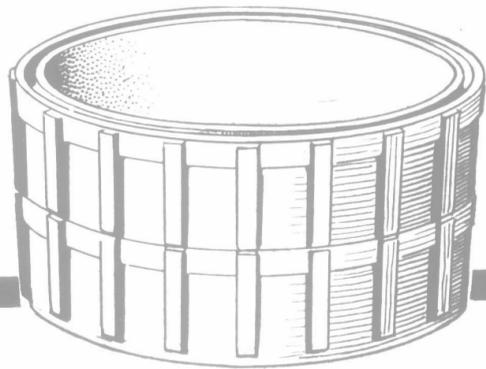
Go to our agent in your locality and ask him for other reasons.

Ask him to tell you about the Nickelated Steel Dome and Radiator, the Three Triangular Grate Bars, the Correctly Placed Water Pan, the Automatic Gas Damper, the "Rocking Down" System.

Let him tell you how the Sunshine will cut down your fuel bills. Let him install a Sunshine furnace

with a guarantee to heat your house to your entire satisfaction.

If you do not know the address of the Sunshine agent in your locality, send a card or letter to the McClary Manufacturing Company at any of the cities mentioned below. By return of mail you will receive an interesting booklet and the name of a competent man, who will be glad to consult with you about the installation of the Sunshine furnace in your home.



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PINE AND HARDWOOD

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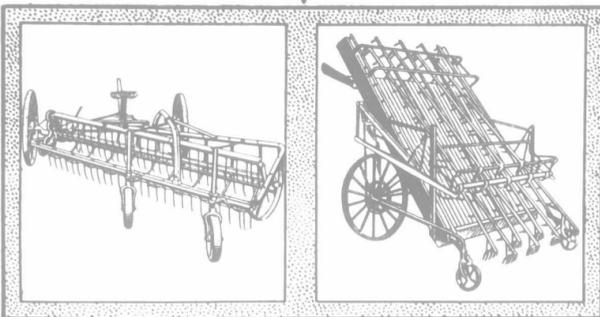
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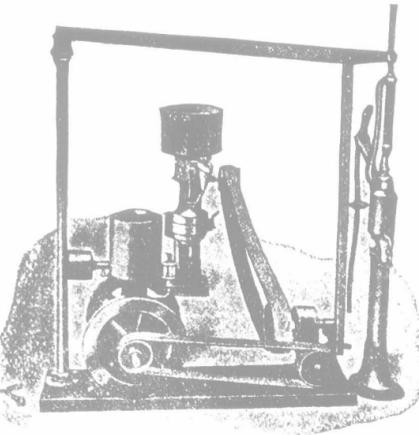
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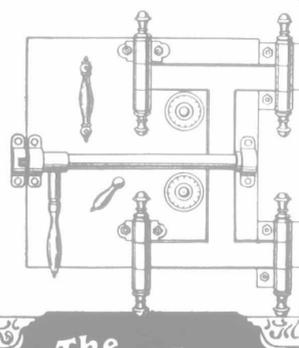
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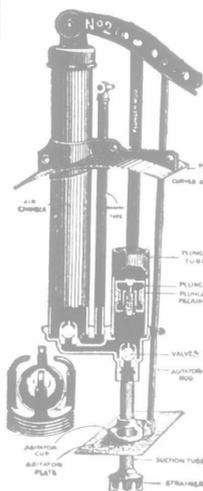
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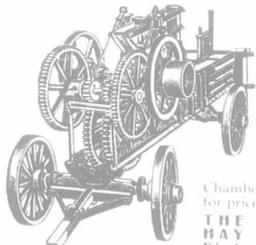
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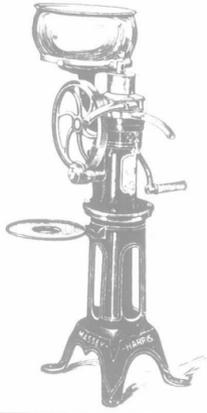
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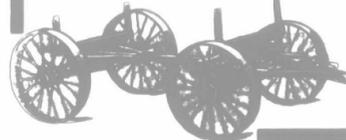
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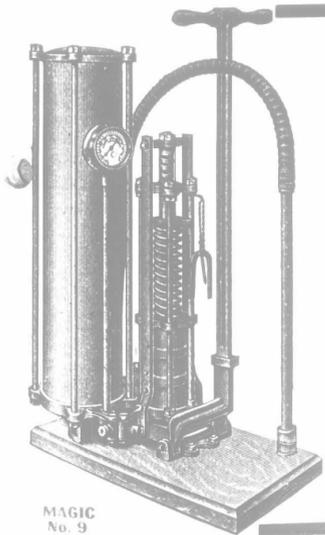
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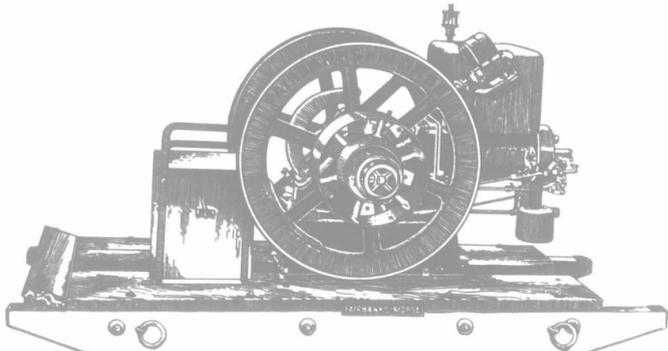
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 "We have a 25 H.-P. Fairbanks-Morse Gasoline Engine that has averaged twenty-one hours per day, with ONLY ONE HOUR'S DELAY IN SEVEN YEARS.
 "It has had two sets of piston rings and two igniters. These are all of the repairs that have been required.
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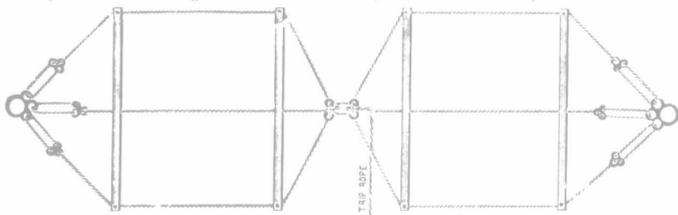
The Canadian Fairbanks Co., Limited, Montreal

BRANCHES: Toronto, St. John, N.B., Winnipeg, Calgary, Vancouver.

F. A. _____ COUPON CUT THIS OUT TO-DAY. 9-6-10
The Canadian Fairbanks Company, Limited, Montreal.
 Gentlemen, Please send me your free Catalogue, G. E., 196, showing full lines of Farm Engines. Special Terms to Farmers.
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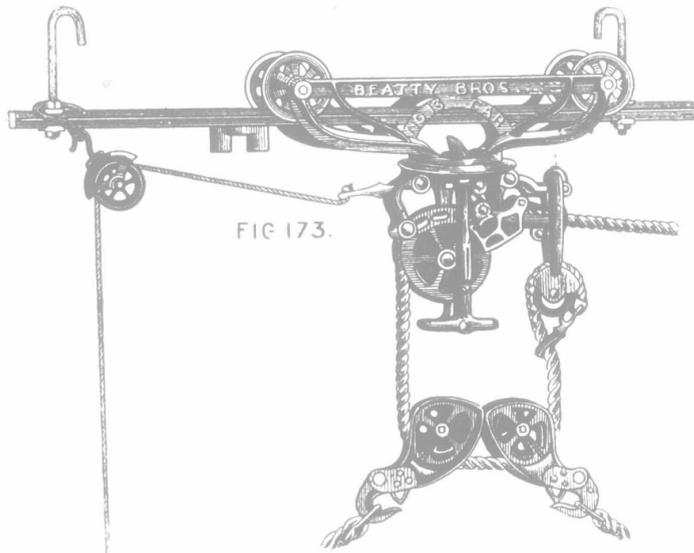
A "BT" Sling Carrier
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1st. Because, with slings you can unload quicker and easier than in any other way. Two to three lifts clean the rack, and it is easier to attach slings than to set a fork.
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"I hear, doctor, that my friend Brown, whom you have been treating so long for liver trouble, has died of stomach trouble," said one of the physician's patients.
 "Don't you believe all you hear," replied the doctor. "When I treat a man for liver trouble, he dies of liver trouble."

The Farmer's Advocate

and Home Magazine

"Persevere and Succeed."

Established 1866.

REGISTERED IN ACCORDANCE WITH THE COPYRIGHT ACT OF 1875.

Vol. XLV.

LONDON, ONTARIO, JUNE 9, 1910

No. 924

EDITORIAL.

Over 100 students are taking the journalism course at Wisconsin University; 26 in the agricultural branch of it.

Much good is bound to result from the digestion of a large body of horticultural experience gathered in orchard surveys.

Under the Wisconsin Agricultural College extension work this season, demonstration work with alfalfa, corn-breeding, fertilizers, etc., is being done on twenty State and county institutional farms.

If Great Britain sees fit to remove the embargo on Canadian cattle, we shall naturally not object. But the idea that Canada has very much to gain thereby is pure fiction. The embargo is a trade restriction, singular in that, while maintained by another country, it has the incidental effect of protecting us from our own folly, to wit, the exportation of stores.

At a big meeting, held in the New York Produce Exchange, an organization was formed, with W. C. Brown, President of the New York Central Railway, at its head, and five other railway presidents, and many prominent business men on the board, to resettle and promote farming in the north-eastern States, according to more modern and successful methods.

The June excursions to the Ontario Agricultural College are announced. The list of Institutes participating is longer than usual. May the crowds, also, be larger. Any farmer, whether well or little informed, who can visit an agricultural college on one of these excursions, without deriving more than five dollars' worth of benefit, must possess a curiously unresponsive mind. It is an eye-opener.

So long as the present excellent opportunities for farming abound in Eastern Canada, the average man is foolish to go either West or North. But for the young man with small capital, who wishes to establish a home for himself, Ontario's Northland offers real attractions. The best of markets, good soil, not a bad climate, and assurance of steady return while clearing the land constitute a quartette of advantages not to be despised.

With commendable enterprise, the Government of Nova Scotia is undertaking to promote farm underdrainage, as it has already stimulated the cause of live-stock improvement. By loaning money for drainage, on easy terms; surveying drainage systems for farmers; and, lastly, by the purchase of a traction ditching machine, operating it at a low contract rate per rod, it is hoped to demonstrate widely the benefits of underdrainage, and assist farmers in this important work.

In stating that there was urgent necessity for overhauling of the details of registration in the National Live-stock Records, "Scotland Yet" cast an undeserved reflection. While the customary vigilance exercised at Ottawa in matters pertaining to registration seems to have been temporarily relaxed in the admission of the Imperial Hunter Studbook to the list of records registration in which qualities for free admission into Canada, still, upon representations as to the true character of this record, it was promptly excluded. On the whole, our National Records system is one to be proud of, and probably the best one possessed by any country in the world.

The Clay Belt in Ontario's Northland.

Three hundred and thirty-five miles north of Toronto (by rail), one hundred and ten miles beyond North Bay, and eight miles past the naked rock-ribbed town of Cobalt, at a point between Haileybury and Liskeard—no longer New Liskeard—one enters a remarkable region. Haileybury and Liskeard, be it understood at the outset, are two thriving towns of some five or six thousand inhabitants each, both situated on that beautiful, eighty-mile, elongated stretch of navigable water called Lake Temiskaming, drained at its southern end by the Ottawa River. The towns are five miles apart. Haileybury has, if anything, the advantage in point of topographical location, sloping up from the lake, and presenting a beautiful view from the outgoing or incoming steamer. With the recent inauguration of a trolley line to Cobalt, Haileybury seems certain to become the favorite residential center for that world-famous mining camp. It thus becomes, as it were, a point of contact between this marvellous mining region, turning out over a million dollars' worth of silver a month, and the magnificent agricultural area just beyond. A hundred miles or so south-west lies Sudbury, the center of what is by far the greatest nickel-mining region in the world. The importance of these relationships, from the standpoint of settlers' markets, will at once be recognized.

But the metropolis of the agricultural district is Liskeard, strategically situated at the very head of Lake Temiskaming, into which flow the Blanche and the Wabi rivers. From this point, or a couple of miles below it, the great clay belt, following up and tributary to the rivers, opens out in the form of a vast, irregular, V-shaped area towards the north, north-west and north-east, but more especially the north-west. It is broken by the Height of Land, a low rocky ridge, the summit of which crosses the Temiskaming and Northern Ontario Railway between 177 and 178 miles from North Bay. Beyond this point, the rivers run north, but save for a belt of rough land at this point and a jack-pine belt of sand, the clay area continues to the National Transcontinental and beyond to the muskeg country bordering James Bay. In general, this sixteen or twenty million acre belt might be described as a vast tableland of white, yellow or brown, but mostly white, clay covered to a varying depth of from an inch to two or three feet, with a sharply-defined layer of dark vegetable mold, consisting of rotten wood and partly-decayed sphagnum moss. At rather frequent intervals the tableland is broken by majestic rivers, winding through valleys of considerable depth. It must not be inferred that the clay land all lies together and unbroken. Here and there outcroppings of rock interrupt the agricultural land, while on the other hand, many blocks of fine soil lie outside the limits of the V-shaped area, as we have attempted to define it. It should be stated that north of the Height of Land the base of the V expands into a broad belt, which continues westward into the districts of Sudbury, Algoma and Thunder Bay, and eastward irregularly into Quebec. Indeed, the Lake St. John country, away north of the City of Quebec, is said to comprise just such soil as in the clay belt of New Ontario. Fortunately, the bulk of the best land lies in large contiguous areas, permitting settlement and social organization under the most advantageous conditions. The fact that a thirty-five mile ride from Cochrane west along the National Transcontinental to the Mattagami River, one of the tributaries of the Moose, revealed not an acre of

broken land, is significant evidence on this score. East from Cochrane, we believe, the land is more muskeggy, and the agricultural area not so unbroken.

Practically the whole area of the Northland is covered with a light timber growth, chiefly valuable for pulpwood, though containing some material for lumber, as the mills scattered through the country attest. The trees consist mainly of spruce, birch, balsam, balm of Gilead (locally called whitewood), poplar and dead tamarack, the latter having been killed by the sawfly years ago, and now constituting the best fuel of the district, and about the only ready fuel for campers. A good deal of the country has been burned over at one time or another, and the present second-growth timber is consequently rather small, though, as a rule, there is quite a forest of spruce along the rivers, probably because the land there is better drained.

On the flat portions, and especially on the muskeg areas, where the depth of the rotten wood and moss, combined with fallen trees, hinders drainage, the land is too cold and wet for vigorous tree growth. Drainage would doubtless improve conditions. Birch is generally found on the fairly well-drained soil. There is said to be little pine, except some jack-pine areas, any distance beyond the Height of Land.

To the uninitiated this great clay belt, as the railroad traverses it to-day, is not particularly inviting. The small wood growth, the whitish soil underneath the mold, the level marshy appearance of much of the muskeg, are liable to excite misgivings, while the latitude disturbs the timorous with fears of short and frosty summers.

As a matter of fact, the southern part of this country has already passed the experimental stage, while even the more remote portions give evidence of proving quite successful. The clay is not clay as we know it in the south, but crumbles readily under the influence of moisture, air and sun, pulverizing into a beautiful seed-bed. The writer picked several of the largest and hardest clods he could find at Liskeard, and brought them south. After being carried in a grip for a week or two they were put outside in a box exposed to weather. A very light shower, not nearly enough to soak them through, softened them so that they crumbled between the fingers like lumps of damp ashes. To anyone accustomed to the clay of the south, the behavior of this Northland material is remarkable, and when mixed with the vegetable mold it makes a beautiful friable productive soil. Splendid crops of farm and garden stuff are produced, the land being especially adapted to peas and clovers, except that the peas sometimes grow too rank, and, consequently, do not fill well. This assures the future agricultural progress of the district, for land that grows legumes has within it a means of perpetual restoration. Gardens worked for twenty years or more show little or no tendency to bake. As a grass and hay country it is superexcellent. E. F. Stephenson, a farmer from York Co., Ont., proprietor of a paper in Liskeard, and owner of a 237-acre farm, of which 40 acres is cleared, tells us he has had alsike and timothy meadows yield as heavily seven or eight years after seeding as at the beginning, even red-clover meadows lasting three or four years.

At a banquet to the pressmen in Liskeard, he stated that Dawson's Golden Chaff wheat had been grown in Liskeard section testing 64 pounds to the bushel for two years in succession; Swede turnips, weighing as high as 15 to 18 pounds apiece; carrots 28 inches long, and great celery. Beautiful, smooth and well-grown potatoes were passed around for inspection. On the local fair

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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grounds timothy was sown rather late in the spring, and three months later the right to cut it for hay was sold for \$25.00. A hundred dollars' worth of hay was cut, and this spring \$50 had already been offered for the privilege of cutting it again. All kinds of our staple farm crops grow successfully except corn, which is not yet produced to any extent. The first farmer in Liskeard went there, we were told, nineteen years ago, and part of the town is now situated on the farm he occupied. Some two thousand bona-fide settlers are now occupying land in the clay belt, besides veterans, speculators and other non-residents, and twenty thousand dollars' worth of agricultural implements were distributed through the Liskeard agencies this spring.

But will these conditions hold farther north? There is every reason to think so. At Monteith, 450 miles from Toronto (mainly north), and 25 or 30 miles from the National Transcontinental, the Ontario Government has established a pioneer demonstration and experimental farm, which is under the superintendency of J. Whitton, formerly of Oxford Co., Ontario. The land on a portion of this farm is rather more high and rolling than the average in the district, though at the rear the soil would seem to be fairly representative. Over 100 acres have been cleared of the timber, and about 16 acres put under crop. A piece of fall wheat was sown last year on the 18th of September, which would be rather late for best results even in the south, and would seem to be decidedly too late for a section so far north. Notwithstanding, it came through the winter, and although looking rather sickly in the spring, was revived by recent rains, and on the occasion of the press excursion visit on May 20th, was looking fairly promising. Variety tests are being conducted with spring wheat, oats, peas, barley, turnips, mangels and carrots. A good class of farm buildings has been erected, and the results of the work at this station will be watched with keen interest. Mr. Whitton informed the pressmen that some men and a team had started a new route in about two days, in proving that the clearing of the land is easy, concluding the

it is a timber country. He considered the prospects encouraging.

A. J. McDonald, Crown Timber Agent, with headquarters at Cochrane, the junction point of the T. & N. O. Ry. with the National Transcontinental, a level-headed Scotch-Canadian, from old Ontario, who has lived in and travelled all over the north country for years past, and knows it like a book, has every confidence in the future of the clay belt as an agricultural district. He is of the opinion that the clay along the line of the National Transcontinental is, if anything, more friable and easily worked than at Liskeard. He himself had a garden at Cochrane last year, where he grew vegetables successfully. At Mistongo, on the Transcontinental, 27½ miles east of Cochrane, the construction camp had a garden last year where they grew all their own vegetables, and had as fine a bed of asters as any he ever saw in a hothouse. On a point just north of Lake Abitibi was another fine garden, with pansies growing out all summer long uncovered until about the 15th or 20th of September. This year he said there had been no frost of any account since the first of May. As in the southern part of the Province, the snow disappeared in March or the early part of April, although afterwards the weather, as in the South, was somewhat backward. The tendency of this clay to pulverize is extraordinary. It seems to be due to a large amount of lime in its composition. Even where it has been packed down by timbering with sledges a light rain or even a heavy dew will soften it and cause it to crumble. All along the railroad where it has been thrown up out of the ditches one may see it lying loose and flaky, naturally pulverized into a beautiful seed-bed.

According to Bureau of Industry returns, the area assessed in the Province of Ontario in 1908 was 24,497,406 acres, of which 14,132,061 were cleared. Probably thirteen million acres of land are under cultivation in old Ontario to-day. Sixteen to twenty million acres await the plow in this magnificent Northland. The land may be cleared with comparative ease and a return derived from pulpwood while the clearing proceeds. The climate, while severe, is by no means inhospitable. Snow is not particularly deep, and winds are said not to be troublesome. To be sure there is danger of damage by summer frosts, but probably not much more so than was the case when old Ontario was settled. The land responds readily to the effects of drainage, and parts which are not otherwise fit for settlement will be eventually underdrained and tilled at a profit. Cochrane, at the junction of the Temiskaming and Northern Ontario with the National Transcontinental (built by the Dominion Government to be operated as part of the Grand Trunk Pacific system), is on or below the forty-ninth parallel of latitude which divides Manitoba and Dakota. On

the shores of Lake Abitibi, in about the same latitude, tomatoes have been ripened without artificial aid, and potatoes thrive well in that region. An official report by Frank Moberley, C.E., published by the T. & N. O. R. Commission, has the following to say on the climate of the Abitibi region:

The climate during the summer months along the shores of Lake Abitibi seems to correspond with that of Prince Edward Island, except in months of September and October, when it is colder. The winters are about the same as Manitoba's. The following are the mean temperatures for six years at H. B. Post on Lake Abitibi:

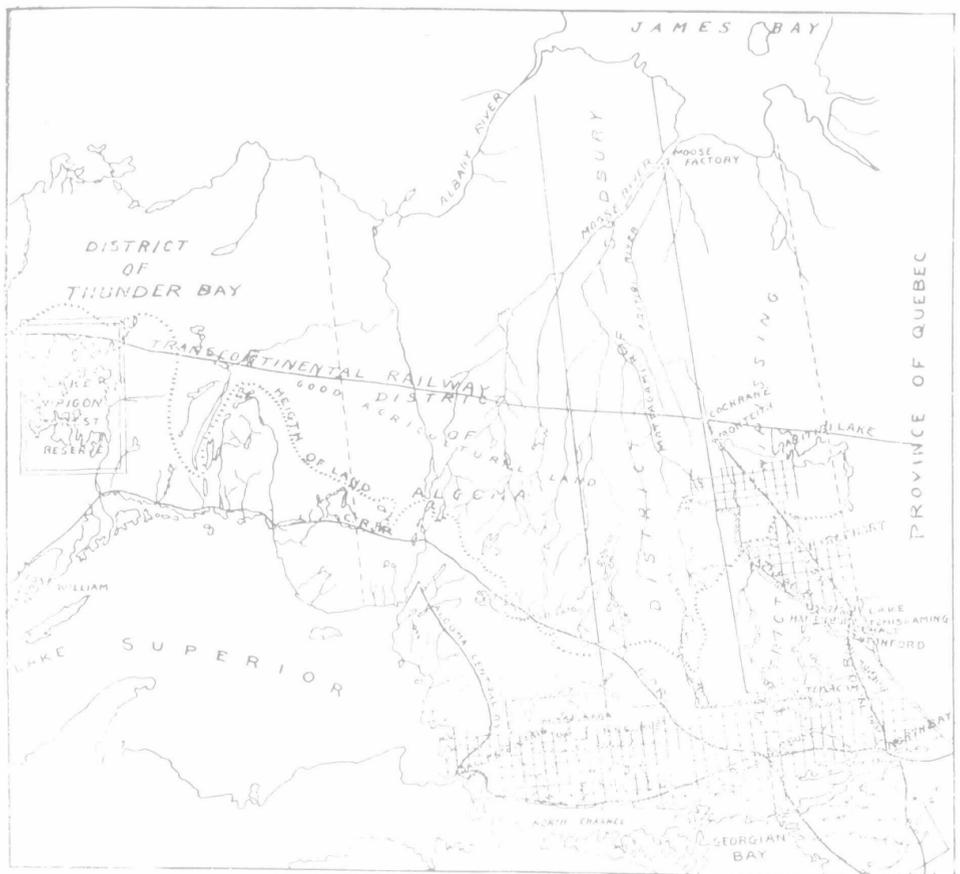
Apr.	May.	June.	July.	Aug.	Sept.	Oct.
33.3	47.3	57.7	64.3	60.5	52.8	40.7

But as you leave the shores of the lake the temperature is lower; ten miles north along the line of Transcontinental Railway it is about five degrees lower, and also to the south as far as Lake Temiskaming. The climate, in fact, is exactly similar to what it was in the south part of the County of Grey some forty years ago.

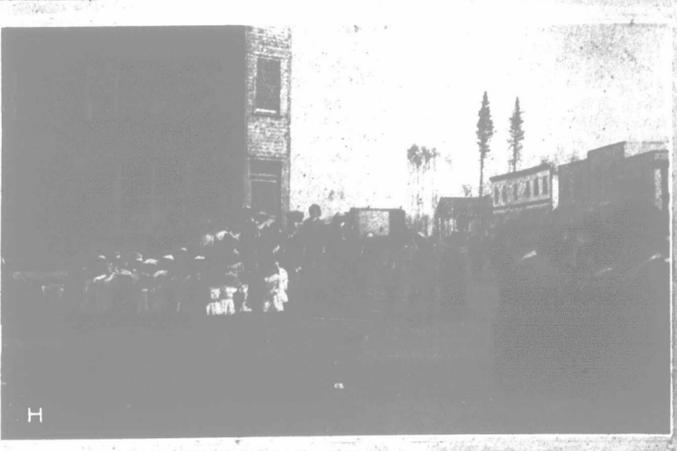
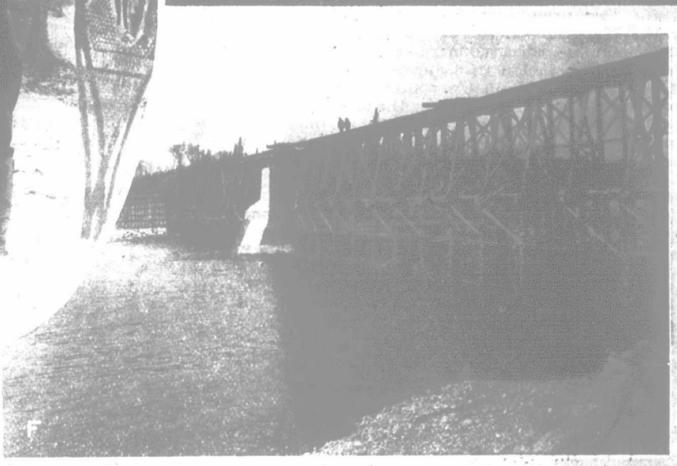
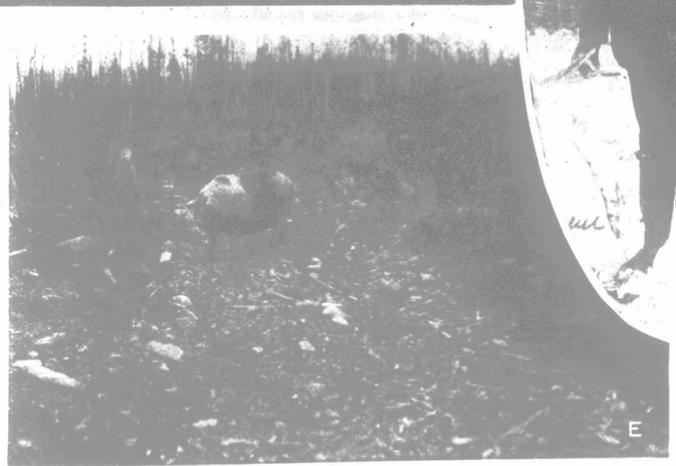
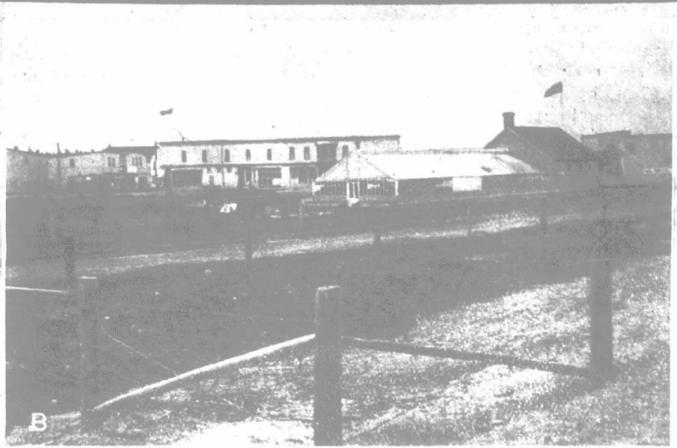
Much other evidence and testimony could be adduced, all going to indicate a magnificent future for this great belt, which will some day support millions of people on the land, and prove a considerable factor, not only in Canada's development, but in meeting the world's rapidly-increasing demand for food and other products of the soil.

Key to Views on Opposite Page.

- (All but two from photos by our staff representative.)
- A—Field of potatoes in blossom in rear view of lumber-yard at Charlton, Ont., in 1906.
 - B—Town of Englehart from T. & N. O. R. depot. Government greenhouse in foreground to supply flowers and ornamental plants for the railway.
 - C—Clearing the way for a town site, Cochrane, Ont.
 - D—A mining camp at Cobalt. House on the hill is the one in which Dr. Drummond, the Habitant poet, died.
 - E—Not a "blind pig." Sow in Cobalt mining district. Quite a number of pigs are to be seen throughout the camp.
 - F—Bridge across the Mattagami River, showing temporary trestlework. This was the farthest point reached by the press excursionists.
 - G—Typical street scene in Cobalt, taken from the Cobalt-Haileybury trolley-line station.
 - H—About fourscore school children at Cochrane, assembled for inspection by the press excursionists.
 - Central Figure—A typical Northerner. A. J. McDonald, Crown Timber Agent at Cochrane.



Map Showing the Clay Belt of New Ontario.



Scenes in New Ontario.

Why We Should Cultivate.

Correspondence published on the summer cultivation of growing crops indicates plainly that few, even among our best-informed farmers, comprehend clearly the real objects of such tillage. These are: First, by deep cultivation, to render the soil more permeable to plant roots, and to compel deep rooting; second, by preserving a loose mulch of dry soil to check upward capillary movement of moisture, and thus conserve it by protecting it from evaporation; third, to aerate or ventilate the soil; fourth, to destroy weeds. The latter object should be accomplished incidentally. The purpose of aerating the soil and conserving moisture is to provide conditions favorable to the liberation of plant food. In addition, large quantities of moisture are necessary to carry the plant-food solutions up to the leaves. Hundreds of tons of moisture are thus used and evaporated in the production of one ton of dry plant tissue. Excessive cultivation may, by causing rapid and complete disintegration of humus, exhaust the soil out of proportion to the net benefit obtained, leaving it in poorer condition to produce subsequent crops, and causing it to run together and bake. Cultivation should be three or four inches deep at first, decreasing to one or two inches when the corn is in tassel. Six or eight stirrings should usually be given the soil in a cornfield, but four or five of these may be advantageously and speedily accomplished with a weeder, which, if used rightly, is one of the most profitable implements one can employ on a farm.

HORSES.

Hunter Breeding and Registration

Editor "The Farmer's Advocate":

We notice in "The Farmer's Advocate" that our old friend, "Scotland Yet," is harshly critical of the Department of Agriculture, Ottawa, in recognizing the Imperial Hunter Studbook, which he characterizes as a "studbook upstart," and not to be taken seriously. "Scotland Yet's" displeasure arises, we surmise, not so much because "a gentleman in a remote town in the south of England" has succeeded in establishing a studbook for this useful breed of horses, as it does from the fact that those in charge of live-stock registration in this country—or, rather, the Clydesdale Association of Canada—have not seen eye to eye with him and his confreres in the matter of accepting for registration the get of certain Clydesdale sires, that, for reasons which need not be entered into here, but which the Clydesdale Association of this country considered sufficient, were not deemed eligible for registration in the Clydesdale Studbooks of the Dominion. And for this reason he makes this report excuse for going a little out of his way to take a crack at his Canadian friends for being "superlatively strict" about one thing and careless in another. We were not aware, until we read "Scotland Yet's" remarks in the matter, that the Ottawa authorities had decided to "recognize" as pure-bred animals recorded in the particular studbook to which he refers. However, if they have, we cannot see that any great harm will result from it, providing the book in question is not an entirely private affair, something to be confounded with the studbooks which certain American importers of French horses have made up to accommodate the animals they bring over.

It is questionable whether any useful end would be served in making a distinct breed of the hunter. It is doubtful if foundation stock for such a breed could be secured which could be depended on to reproduce the type and qualities required in the hunter. And yet there seems no reason why horses of hunter type should not be as easily bred as horses of draft type, harness type, or any of the other distinct types into which the equine family has been divided. They are a class of horse for which good demand exists in England, and when a man succeeds in raising a well-made horse with a back that won't break when he is sent over the jumps with a weight up of 175 pounds or so, with legs that will stand the strain the animal is put to in cross-country work—jumping hedges and ditches, going over soft ground, up hill and down, and keeping up a galloping pace for miles at a stretch—when he produces a horse of the type, quality and stamina to do this, he has an animal that is worth some money in England, or any part of the world where horseflesh for riding purposes has any particular value.

Hunters usually are the get of Thoroughbred sires. It is generally agreed that Thoroughbred

blood is required to give stamina, staying power and ambition, without which the hunter would be no better than the cab horse. Hence a usual practice in breeding hunters is to cross a mare that is herself a good hunter with a Thoroughbred stallion. But the results of such matings have not shown that consistency in type can be expected in the offspring. Such a mare is usually a cross-bred herself, or may have in her the blood of several different breeds; she may foal a hunter, but she is just as apt to foal something else. It is strongly probable that the offspring of such breeding will be a "weed." So hunters usually are "misfit" Thoroughbreds, and thus far the chances of getting enough saddle horses of this type in the ordinary course of breeding for speed purposes have been long enough to supply requirements, that and the "misfits" that result from other courses of breeding.

It is difficult to see how much uniformity can be expected in hunters as a breed. The foundation stock such breeds start from have not the quality of reproducing their own characteristics, and while it would be reasonable to suppose that after several generations of careful selection a hunter horse that would reproduce itself with some uniformity might be developed, it seems as reasonable that a sufficient number of equally as good horses could be produced in the manner in which hunters are now ordinarily bred. But then, something of the same criticism might have been offered when some individuals were laying the foundations of the various and distinct breeds of horses which now exist. A breed cannot start pure and reproduce itself uniformly true to type from the first. That character has to be developed, and perhaps when several generations of pure-bred hunters have been reared we shall have a breed that will reproduce hunter qualities as uniformly as the Clyde or Shire reproduce draft qualities, or the other breeds the particular types or characteristics for which they have been developed. The Irish have had a studbook for hunters for some time. EQUITANT.

New Percheron Secretary.

Geo. W. Stubblefield, who has been for several years secretary of the Percheron Society of America, has resigned the office, and Prof. Wayne Dinsmore, of the Iowa State College, at Ames, Iowa, has been appointed to the office. Prof. Dinsmore announces that he will be unable to give his undivided attention to the work of the Society until August 1st, after which date his address will be, Union Stock-yards, Chicago, Ill. Prof. Dinsmore, it is confidently believed, will make a very strong secretary for the Society, and a decided acquisition to Percheron interests in America.

LIVE STOCK.

Experience with the Yeast Treatment.

Frequent enquiries have reached this office regarding the effect of what is known as the yeast treatment for mares and cows failing to breed. A few favorable testimonials from those who have used it with apparent success have also been received, while, as was to be expected, as many or more unsuccessful experiences have been reported. The theory upon which treatment is based is that the usual cause of barrenness is bacteria of some sort, that give rise to an acrid condition of the secretions of the generative organs, which is destructive to the female ova and male spermatozoa. The yeast organisms when introduced into the vagina are supposed to invade every part of the female generative organs, destroy all bacterial life and incidentally neutralize the acid condition referred to. It has also been claimed by some that this treatment is effective in destroying the germs of contagious abortion, when used after abortion has taken place, thus serving as a preventive of recurrence of the disease, though we have no reliable evidence to that effect. The preparation for the treatment, which has been repeatedly published in these columns, is to stir to a paste with a little warm water one cake of compressed yeast and allow it to stand in a moderately warm room for twelve hours, at the end of which time stir in a pint of freshly-boiled lukewarm water, and allow to stand as before for another eight or twelve hours, when the mixture will be ready for use by being simply injected into the vagina by means of a large syringe, after first flushing the passage with warm water. Make this injection when the animal is first seen in season, and have her bred when the period of season is about over. In obstinate cases, first open the mouth of the womb with the forefinger, then inject the mixture into the vagina, not the womb. Repeat the treatment at each period of heat until the animal conceives. Prepare the mixture 24 hours ahead of the time the cow or mare is expected to come in heat.

With a view to securing evidence of the success of this treatment for the desired purpose, we have enquired of authorities who have used it, and we quote from their replies. Professor G. E. Day, of the Ontario Agricultural College, writes:

"We have used the treatment for several years, but have no definite proof of its merit. Following are some of the most notable cases:

"About four years ago, twelve cows in the dairy stable, which had given more or less trouble, were divided into three lots of four cows each. One lot was given the yeast treatment, and each of the other two lots was treated with a certain proprietary remedy. Of the four cows given the yeast treatment, three got in calf, but of the remaining eight cows, only one got in calf during treatment.

"In our other stable we have also used yeast. In one case a heifer was bred seventeen times, and operated upon several times for the purpose of 'opening her up,' without results. She was treated with yeast, and held to the eighteenth service, producing a healthy calf in due time.

"Another heifer was bred five times without getting in calf. At the sixth period of heat she was given the yeast treatment, but not bred. At the seventh period of heat she was treated again and bred, and held to this service.

"Three other heifers were treated with yeast several times, and failed to breed. One of these was slaughtered, and the post-mortem showed that the entrance to the uterus was completely closed. The other two were sold for export, so that no post-mortem examination was made.

"These results decidedly favor the yeast treatment, but we have no means of knowing what would have been the result had the yeast treatment not been used. The following three cases will illustrate this point:

"1. A Shorthorn heifer, bred seven times without result, held to the eighth service.

"2. An Angus heifer, bred seven times without result, held to the eighth service.

"3. A Hereford heifer, bred seven times without result, held to the eighth service.

"None of these heifers received any treatment whatever, yet they all held to the eighth service. If we had treated these heifers, the treatment would have got credit from most people. Further, many people would have given these heifers up as non-breeders before the eighth service was reached. These cases show how easy it is to draw erroneous conclusions. No doubt, failure to breed may be due to a number of different causes, and the effectiveness of a given remedy will depend upon its ability to overcome the conditions which prevent conception. It seems only reasonable to assume that no one remedy could be effective in all cases, and while the yeast treatment may be of use in certain cases, it is certainly not effective in all. So far as our experience goes, we do not know whether the yeast was of service or whether the cases where it appeared to be beneficial were merely coincidences, and I can see no way of settling the point."

J. H. Grisdale, Agriculturist, Central Experimental Farm, Ottawa, writes:

"We have tried the yeast treatment here on two different occasions. One time it was successful—that is, the cow held after the treatment—and in the other case it was not successful, so I am not prepared to say that it is a good treatment or not.

"It is, however, a very simple treatment, and one that would be worth trying by any farmer who found himself with a cow somewhat shy as a breeder."

Western Ranch Industry Languishing.

At the Western Live-stock Growers' annual meeting at Medicine Hat, on May 12th, the wane of the cattle industry of the West was the main topic of discussion, and various opinions were expressed as to what action the ranchers and stockmen should take. The following resolution was unanimously passed:

"That this association desires once again to place itself on record that it considers it absolutely necessary in order to safeguard what remains of the cattle-raising industry, that the tenure of grazing leases shall be made more permanent; that when a grazing lease is granted it shall not be liable to cancellation at the will of the Minister of the Interior. We would recommend that grazing leases shall be made for at least a period of ten years, and that when once granted they shall be permanent for the said period, existing leases to be brought under similar conditions."

Officers were elected for the year: President, Walter Huckvale, Medicine Hat; First Vice-President, George Lane, Pekisko; Second Vice-President, A. E. Cross, Calgary. Executive Committee: P. Burns and W. R. Hull, Calgary; Howell Harris and A. J. McLean, Lethbridge; H. Eckford and J. S. Brown, High River; J. Lineham, A. P. Day and W. A. Taylor, Medicine Hat; E. H. Mansell, Macleod; H. M. Hatfield, Pincher Creek; A. B. McDonald and G. Pemberton, Willow Creek; A. J. Day and D. L. White, Maple Creek.

Holstein-Hereford Cross.

Editor "The Farmer's Advocate":

While dairying gives so remunerative returns, farmers are going to stick to dairying, and deserve credit for so doing. The beef industry is heavily handicapped at the present time, owing to the exclusive use of dairy breeds for dairy purposes.

The Holstein is apparently the favorite factory cow, therefore in numbers is much in advance of any other breed. The Holstein of the present day is a big, roomy, well-built animal, and an early maturer, but lacks the fine points that the butcher and feeder desire; a Holstein in a lot of stockers being an eyesore and a detriment in the bunch.

While dairying is profitable, yet the beef industry is equally profitable. Now, why not combine the two to a limited extent at least, by crossing one of our best dairy breeds with one of our best beef breeds? Why destroy so many calves every spring for no returns except the hide?

To our dairy friends let us look for help in solving the beef scarcity. Instead of breeding the Holstein for milk alone, breed for beef calves also. I imagine I hear some old Shorthorn breeders laugh outright at such idiocy in expecting anything that would even approach the beef type out of a Holstein cow.

The Hereford is an early-maturing animal, carrying a heavy carcass of the finest beef, and stamps its characteristics wherever crossed.

My advice to dairymen who have a herd of good, square-built Holstein cows, is to cross them with a heavy pure-bred Hereford bull, and instead of destroying the calves raise them, and you will be well pleased with the income derived from selling these calves in the fall.

I have had several stockers of this cross, and all gave very satisfactory results, being rapid growers and early maturers of a good beef type; they nearly always have the Hereford markings.

Now, I have no axe to grind, as I buy steers and heifers in the fall to feed and run on grass the following summer, and owing to the increase in dairy breeds, find great difficulty in picking up a satisfactory bunch, but feel so well satisfied with this cross that I would put in a stable full of them could they only be found.

Middlesex Co., Ont.

EDW. DUNN.

The Hampshire Sheep.

By Geo. L. Telfer.

To write the history of this breed would lead us back almost to the time of William the Conqueror. About this time there existed two breeds of sheep that thrived well on the chalk lands of the South downs of England, and from these sheep have come the now splendid mutton breeds, the Southdown and Hampshire. The former have long since become one of the leaders for fine mutton, and the Hampshire has proved that wherever he goes he finds admirers, whether it is on the block or in the show-yard, where he is, with good fitting, a remarkably attractive animal. But, to proceed with his history, the Hampshire was found to be a larger and coarser sheep than his ancestor, the Southdown, and required to be fed on stronger and better land, and thus they found their homes on the heavier lands of Hampshire, Wiltshire, and Berkshire. There was at this time a great variety, some with dark faces, others spotted, and with wool running from fine to very coarse, until about 1815 to 1835, when a class of sheep was desired that would thrive well on exposed pastures, and, when put on feed, would take on flesh of good quality, and these flocks, crossed with the Southdown, were found to fill the bill. Although the breed lacked somewhat in type, it was the foundation on which the Hampshire breed was formed. It then remained for some influential men to go on and improve and boom the breed. Foremost amongst these was Mr. Humphrey, of Oak Ash, a man who possessed the genius required in an improver of stock. Along with Mr. Humphrey were Mrs. Lawrence, of Bulbridge, and Morrison, of Fonthill. In 1851 a Southdown ram was purchased from Jonas Webb, but the trouble with this cross was the loss of size, and to overcome this, only the largest ewes were bred, and by careful selections from time to time, the flock was being gradually graded up to the Hampshire type, as developed by Mr. Humphrey. He was very careful in his selections, both of ewes and rams, buying ewes very seldom. Lambs were selected at birth, and those showing the least sign of weakness or of type were marked for the feeding pen, and only the best were kept as breeders. In 1868, Mr. Humphrey brought at his dispersion sale, many of his rams brought from 10 to 60 guineas each, when Mr. Rawlings, a keen buyer, took up the work of building up the breed, and in later years the wonderful qualities of this now famous breed became known, and it can truly be said no breed has come so rapidly to the front.

The Hampshire is the heaviest of the Down breeds, excelled in weight only by the heavier breeds of the long-wooled varieties. Mature rams, in good condition, should weigh from 260

to 325 pounds, and ewes from 175 to 225 pounds. The ewes are great milkers, and thus produce heavy, early-maturing lambs for the spring markets. The Hampshire should have wool somewhat after the type of the Shropshire, clean from fibre, coming down to the eyes and on hind legs. Legs, face and ears should be a uniform black.

This breed is well adapted to either pasture or pen feeding, and has stood well to the front in all the leading fat-stock shows in England and other places, and the Hampshires are possibly bringing higher prices, and are more sought after, than any other breed at the present time.

Brant Co., Ont.

THE FARM.

Believes in Large Corn Ears.

Editor "The Farmer's Advocate":

In justice to myself, I can hardly let the criticisms of T. S. Biggar and R. H. Abraham, on my former letter, go without a short reply. In the first place, I want to put myself on record as being in sympathy with the aims of the Corn-growers' Association, of which I am a member,



Hampshire Down Ram

and would like to express my appreciation of the efforts of Mr. McKenney and the Department of Agriculture in their successful conduct of the corn show. I don't know that I directly criticised the corn judging there, though my remarks could hardly be construed as endorsing the same. Above all things, in matters which affect our common interests as farmers, let us be fair in our discussions, and not assume that people are grieving or lamenting, as Mr. Abraham did in his letter respecting myself. I can assure Mr. Abraham that the individual who has an abundance of good sound corn suitable for seed has no occasion to lament or even envy the other fellow who gets a little prize money and has no corn to speak of suitable for seed purposes.



Hampshire Down Shearing Ewes.

First at Royal Show, England.

I simply stated that all ears over nine, or possibly ten, inches in length were rejected, and that if you could grow ears weighing two pounds each you would stand no chance for a prize with ears of that size. I simply made this statement to show that large ears, regardless of all other considerations, were ruled out. How Mr. Abraham could stretch his imagination to the point of assuming that a two-pound ear was my ideal in corn-growing, is something not warranted by the context.

I never place my ideals in the realm of impossibilities, and consider that a two-pound ear of corn is considerably beyond the limit of attainment with the varieties adapted to this climate. If Mr. Abraham uses a two-horse planter with check rower, he plants his corn 3 ft. 8 in. apart each way, unless he has given a special order, as

3 ft. 8 in. is the regulation distance. If he does not use a planter such as above, but puts his corn in with a spud planter, he is certainly behind the times in corn-growing.

Corn planted 3 ft. 8 in. each way, which is the almost universal distance in Essex, gives 3,240 hills to the acre, instead of 3,556. But how foolish to speculate on an absolutely uniform size of ears. Did Mr. Biggar or Mr. Abraham ever see a field, or even a hill or a half-dozen hills, in which the ears were all of uniform size or weight? Did either of these gentlemen ever see a field, or even a small patch, in which there were not barren stalks? How can we expect to get ears of an average weight, of, say, ten ounces, except by having a large number weighing a pound or over? You must have the big ears to make up for the nubbins and barren stalks. You cannot get the big crop without big ears, of, say, a pound or more.

Now, a word as to early maturity. I deny emphatically that the climate in this county is not sufficiently long and warm to produce the dent varieties, such as are commonly grown here to their fullest development, if planted before the first of June. I planted large White-cap myself last year on the 15th day of June, and there was not a soft nubbin in the field. I have planted it on the 19th of June with the same result, and I can give the name of a farmer within four miles of Kingsville, Essex Co., who planted the same variety on the first day of July, 1889, and husked 125 bushels of ears of sound corn to the acre, and he always selects the large ears for seed.

Of course, I know it is a more risky business to grow corn in some parts of Kent County. I was up in the north-east part of Kent in 1907, at husking time, and it was surely discouraging to see the havoc that had been wrought by spring frosts after the corn was up. I went to the Western Fair last fall, and from Thamesville to about Glencoe the corn had been frozen and the leaves were all bleached out. The above remarks do not apply to the south and south-western parts of Kent County.

Again, in respect to the theory that medium or small ears or tips of ears have a tendency to earlier maturity than the large ones, I cannot accept it. Having been born and reared on the farm, and actively engaged or closely identified with the growing of corn nearly all my life, my experience entirely disproves this theory. I have in my earlier life, before I came to Essex, husked corn containing a goodly number of immature ears. The larger ears were invariably the ripest, and the soft corn was almost entirely among the small ears or nubbins. I would suggest that the better way to procure an early-maturing strain of any variety of corn would be to go through the field when the crop is ripening and choose for seed those ears which show marked characteristics of early maturity; continue this selection for a term of years, and thus certainly achieve a greater success than by an indiscriminate selection of medium-sized ears.

Judging corn is like judging everything else. Two men take their corn to Guelph. One man has little short ears, six or seven inches in length; the other shows ten ears, as perfect as you could wish to see, but about two inches longer. The man with the small corn gets the first prize, the other one gets the second. They take the same corn to Essex and the decision is reversed, which would certainly not have been the case had the second party chanced to have selected ears longer than ten inches.

The good book says prove all things and hold fast that which is good. I would suggest that my critics test this matter of yield and earliness from large ears versus small ears. If it can be shown by a series of experiments conducted over a term of years, that corn seed selected from medium ears, say 8 inches in length, will produce an earlier and an equally or a more productive strain from the same variety, I will not be backward in making due acknowledgment of my error.

Anyone can grow small or medium ears of corn. A poor soil with good culture, or a good soil with poor culture, will not grow big crops of anything. For the ambitious farmer who feeds his land and gives it the best possible cultivation to be compelled to exhibit his small corn in order to compete with his neighbor whose land is leaner and not so well tilled, is not encouraging to good farming. Success will never come by low ideals and lack of ambition to excel in whatever one undertakes.

Before closing I would like to compliment Mr. Biggar on his reference to drainage. His remarks on this point are very commendable, as drainage in this county is an all-important consideration.

If we cannot agree on the other matters discussed, we certainly can agree to disagree.
Essex Co., Ont. L. C. PALMER.

Cultivation of Corn.

Editor "The Farmer's Advocate":

In growing a crop of corn we try to conform our doings to the furtherance of the demands of plant growth. The conditions of growth are five, viz., warmth, air, moisture, plant food and sunlight. Sunlight is provided for by planting 42 inches apart in hills, aiming at about 3 plants to the hill, which, however, may need six seeds planted. Our observations are that too many growers of corn do not provide for sufficient sunlight.

As to plant food, that must be provided for in a proper system of farm practice, and if not right, cannot be remedied all at once; but a good clover sod and fresh barnyard manure abundantly supplied will give a humifying condition in the soil which is quite favorable. The three factors still left, as well as the humifying of the vegetable matter in the soil, are all promoted by thorough and consistent tillage or surface cultivation. The proper cultivation of the corn is the most immediately effective condition the farmer has at his control, and in our practice we have never felt that it was overdone, though we have seen considerable ineffective cultivation.

I will not say how often a field of corn should be cultivated, but I have seen men cultivate two, three or more times in succession when once was sufficient, and then neglect cultivation for weeks after another cultivation should have been given, and thus lose the real benefits that should have come from judicious cultivation. The benefits depend not so much upon the number of cultivations given as upon the timeliness of doing the work, and for warmth, air, moisture, and the benefits these bring, we aim at never allowing a crusted or compacted surface to remain unbroken. The hoe should be used early and close about the plants; later tillage must recede from the plant, and also become slightly more shallow, but good judgment is the only exact rule to lay down. We use a two-horse cultivator while the plants are not too large; if the corn is growing fast and succulent it will easily break off, except during the heat of the day, when it is a little wilted, it will stand more rough usage; but when too large a one-horse cultivator does the work, until the tassels appear and the horse is hid from view. A two-horse cultivator should go over one and a quarter acres per hour, or more, and a one-horse outfit about half that much.

The amount of man and horse labor to take care of an acre of corn will vary considerably with weather and conditions, but with hand hoeing and all, a man and a horse for one day to the acre will be more than is usually expended on the corn crop. We have never had a weeder, and, usually, with our system of keeping both the sod and manure in the surface soil, there is too much on the surface to drag with the teeth of the ordinary harrow to do much dragging after the corn is up; but, however it be prevented, there must no crust remain on the corn ground.
Waterloo Co., Ont. ANSON GROH.

Corn Cultivation in Essex.

Editor "The Farmer's Advocate":

In answer to your inquiries re the cultivation of growing crops, there are a great many things to be considered. The objects are: Conserving of moisture, keeping down weeds. Excessive cultivation may be done, but so far as I know, it has not been practiced. Where land is not drained it is inclined to run together.

We cultivate corn four or five times during the season; the last few years we have been later in getting corn planted, so there is less time for cultivation. We use single and two-horse cultivators, doing from three to six acres each day, according to ground and height of corn. We do not use a weeder. About three inches in the beginning of the season, and about two inches in the end, is depth of cultivation.

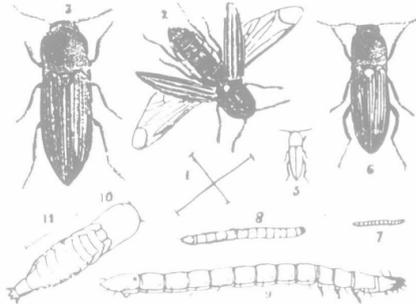
We cultivate until corn is tasselled, and sometimes longer. We usually go through corn with hoe and remove weeds left by cultivator. For the summer cultivation of an acre of corn it takes about four to six days' horse time, and about ten days' labor for a man. I am not able to answer this latter question in a satisfactory manner, never having kept account of labor, time, etc. There is a vast amount of difference in time spent, as the ground, when not properly prepared, is harder to cultivate; and again, when haying and harvest starts, there are usually broken days. It may be two or three hours in the corn field, and balance of day in hay. I may state that in this vicinity the corn, especially, does not see enough cultivation. Help is scarce, and as I said, the harvest comes when cultivation should be going on.
JAS. W. ROBINSON.
Essex Co., Ont.

Wireworms and White Grubs.

Both of these destructive insect grubs were very numerous in Ontario last year, and from enquiries received at this office this spring it is to be feared that their ravages will be continued this season also.

These pests are not usually found to any serious extent in land which is worked in a regular rotation of crops, particularly if the rotation be a short one. In land that has been in grass for many years the white grubs occasionally become so plentiful as to kill all the grass over a large percentage of the area, as happened to many Western Ontario pasture fields last year. But even where their presence is not made known by the destruction of grass, when such old sod fields are plowed up and put into root or cereal crops, the havoc that white grubs and wireworms work on the crops sown or planted, especially potatoes, is very great indeed. Unfortunately, the damage is not confined to one season alone. During the first summer after being plowed these creatures are able to get considerable sustenance from the roots and rootstalks of the grass which has been plowed under. The second season, when none of this food is available, the attack is altogether on the roots of the growing crop, and frequently more loss is occasioned than in the previous year.

Dr. C. Gordon Hewitt, Dominion Entomologist.

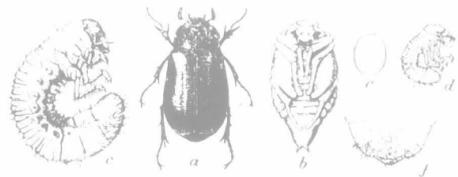


Wireworms (7, 8, 9); pupa (10)—enlarged, click beetles (1-6) natural size; 2, 3, 6—enlarged.

In his evidence before the Select Standing Committee on Agriculture and Colonization last December, gave much detailed information concerning the life history and habits of wireworms and white grubs, from which we cull some points which may be useful to "The Farmer's Advocate" readers.

WIREWORMS.

Wireworms are the larvae of the family of beetles known as "click beetles," those insects which when turned on their backs spring up into the air with a sharp click and regain their normal position. Their life history is as follows: The eggs are laid by the beetle in the spring or summer, and then the larvae hatch out and begin to feed on the roots. They move about at a depth of a few inches below the surface, and the more loose the soil is the easier it is for them to do so. They live in the worm condition for two, three or four years, according to species, and when fully grown



May Beetle or White Grub: (a) beetle, (b) pupa, (c) larva or grub.

go a little deeper into the soil and enter the pupa stage, from which in a few weeks they change into the perfect insect.

WHITE GRUBS.

The white grub is the larva of the June bug, and, like the wireworm, has a life history which extends over several years, generally about three years. The different stages in its career from the egg to the adult insect are also so similar that it would be but repetition to enumerate them.

REMEDIES.

While a heavy dressing of 600 to 800 pounds of salt per acre will often clear the land of white grubs and wireworms, and heavy dressings of nitrate of soda, superphosphate and kainit have also been found useful, the chief dependence must be placed on cultural methods. Dr. Hewitt recommends instead of roots or cereals being grown on old infested sod that clover, which is not subject to attack, or flax, which is also believed to be comparatively immune, be grown or, better still, if it can be afforded, that the land be summer-fallowed. These to be preceded and followed by deep plowing of the land late in the fall. Between

starvation and being twice exposed to winter frosts most of the insects will be exterminated. Where white grubs abound the turning of hogs into newly-plowed land is strongly advised.

Extensive experiments made by Prof. Forbes in Illinois go to show the difficulty of clearing wireworms out of the land, and scarcely agree with Dr. Hewitt's ideas. He found that coating seed grain with poison, the surface application of salt and other chemicals, and even the attempt to starve them out by a clean fallow—a costly method at best—were practically useless. Cultural methods were the only ones of much avail.

Summer Cultivation of Hoed Crops.

The amount and kind of summer cultivation given to corn and root crops is of great importance, both to the crops themselves and to those which follow. The objects of such cultivation are: Control of moisture, liberation of plant food, and destruction of weeds, the securing of these providing the best soil conditions for plant development. Generally speaking, the more cultivation, the greater will be the crop, and "excessive cultivation" is hard to imagine, except, perhaps, in the stiffest clay, where there might be a tendency to run together and bake in the following season.

To secure the above-mentioned object, the implements I use are the harrow, cultivator and hoe, and I shall briefly describe our method of cultivating these crops. The roots are sown on raised drills, 27 inches apart, and the drills are rolled with the land roller four or five days after sowing. The one-horse sculler is started when the plants are about two inches high, and used twice before thinning, which is done when plants are about three inches high. We calculate to cultivate five or six times through the season, especially after heavy rains, going deeply at first, and shallower as the growing season progresses. We hoe the roots twice, the second time about two weeks after the first. In a very weedy piece of land, a third hoeing would be very advantageous.

With ensilage corn the harrow is used when the seed has well sprouted, and again when the plants are about two inches high. I do not use a weeder, but if I had one I would use it three or four times before the first cultivating. The two-horse cultivator is started shortly after the last harrowing, going about four inches deep, cultivating close to the plants, the shields preventing the small plants being covered by the soil. We use this implement frequently until the corn is too high for its use, each succeeding cultivation being slightly shallower than the previous one, and slightly farther from the row. After this, the one-horse sculler is used, and continued every two weeks until the tassels appear, and, as before, gradually getting shallower, just to keep a constant soil mulch. It is important to stir the soil after each rain. We hoe the corn when it is about four inches high, and again at about 18 inches high. I count on covering six acres of corn in a day with the cultivator.

It is difficult to state exactly the amount of horse and hand labor that an acre of corn requires by this plan, but I would estimate it would take two days' work for a team of horses, and three days' work for a good man.
Perth Co., Ont. J. M. McCALLUM.

Some Farm Problems.

The subject for discussion at the recent meeting of the Brant Township Farmers' Club was, "The Greatest Farm Problem of To-day," and it seems there is more than one "greatest farm problem." Several were discussed, and the following is a synopsis of the different problems as they were presented:

1. The Market Problem.—Everyone has personal problems of his own, but this is one in which all farmers cannot help but be interested. In fact, it is the business end of the farming occupation. How to make the most money out of one year's operations, is a problem which all are trying to solve. In the first place, the farmer should study the markets a little more. He should have an idea of the supply and demand of his products. He should know how much of a certain product is in existence in the country, and whether and why that supply is increasing or diminishing. He should also know what time of year the supply runs low, or the demand high. The business man always looks at the prices of things he deals in before reading anything else. There should be a little more system as to when to market our produce.

In marketing, the farmer is the only person that does not control the price of his products. He takes what others give him, often not knowing whether he is selling at a profit or at a loss. The farmer should know what it has cost him to produce what he has to sell. To this he should add the value of his time required in producing it, at the general ware, and if he can't get that price, he had better quit producing it. Better do nothing at all than to go down hill.

Another thing in connection with marketing is

the dumping method. Do not market your products all at once, but do so gradually, and thus keep the price up. When the markets are overstocked, the price goes down.

2. The next problem in this locality, and perhaps also in others, is the rural telephone. It is admitted that the telephone, although not a necessity, is a great convenience. But the problem is, "Shall it be an independent company, or shall it be the Bell Telephone Company?" It was shown that independent companies can be made, and are a success, and are paying dividends of from 7 to 11 per cent. to their stockholders. Both propositions have their advantages and disadvantages, but as this is not really a farm problem, we will have to pass it by.

3. The Labor Question.—Farm labor is getting to be very scarce, and many would have to do without help if it were not for the British immigrants coming in. The majority of these are without farm experience, and it requires a lot of patience and time to get them to be of any practical use. Just what this kind of labor is worth, is one of the problems that was left unsettled. As to the reason why the farm population is going cityward, one member said that several large cities had committees whose aim it is to attract young men to their city, in order to swell their population. Another member suggested that education was the cause. But to the writer it seems to be the lack of the proper education that is making many leave the farm.

4. Another problem is the weed problem. This is getting to be quite a serious one in some localities. In many cases summer-fallowing has to be resorted to, to somewhat lessen the number of weeds. This, of course, means the loss of a year's crop. We would, therefore, warn those sections which are comparatively free of noxious weeds, to pay attention to their clover and timothy seeds, and tackle the weed problem before it gets the mastery.

5. Another serious pest is the white grub, which is doing much damage. It is thought that a number of oat fields will have to be resown, and large patches in pastures are entirely destroyed. No practical remedy is known to combat this pest. Bruce Co., Ont. A. E. W.

THE DAIRY.

Alfalfa for Dairy Cows.

Editor "The Farmer's Advocate":

We have fed our cows for the past three winters exclusively (except in some experimental work) upon corn silage, roots and alfalfa hay, with excellent results, both as regards yield of milk and condition of the animals.

Figuring the cost of producing corn silage at \$1.25 per ton, roots at four cents per bushel and alfalfa hay at \$4 per ton, we fed three cows on a test for one week, where all the feed was weighed and the milk weighed and tested. Then a week was allowed to intervene, during which the cows were fed oat chop gradually until each received five pounds of oat chop per day. If we count the cost of producing oats at 21 cents per bushel, which was one-half of the market price at the time of the test, being in the winter of 1909

I do not think they were produced for that sum the third week the results were an increase of 15 per cent. in the amount of milk obtained, at an increased cost of 25½ per cent., which was 10½ per cent. in favor of the silage, roots and alfalfa without the oats. Nearly every farmer who has fed alfalfa speaks highly of it, but occasionally I have met those who say they get no better results from it than when they feed well-saved red clover hay, and they would add, "The alfalfa is beautiful and green." Upon examination we would find the alfalfa green, but the leaves nearly all off the stems. Chemists tell us that 44 pounds of alfalfa leaves contain as much protein as 100 pounds of stems. If such is the case, these men have by their actual work in feeding, demonstrated the correctness of the chemists' work.

We have grown alfalfa for the past 14 years, and have cut it three times each year, with the exception of two years. When we cut three crops in the season, I think we are safe in stating that we have had on an average at least six tons to the acre.

It is hard to say what is the average duration of a profitable stand of alfalfa. We have been growing it only for about seven or eight years what I consider profitably, and our longest term for a stand has been five years, but we have fields now that bid fair to do much better. Our non-success in the first years of growing was from lack of knowledge how to take care of the fields during the fall and winter. I saw a field last summer that had been down for six or eight years, and was still in excellent condition. Ontario Co., Ont. GLENBENNING

Dairy Cow Queries.

- What is the object in keeping a cow?
- Is it simply to consume the crops grown in the fields?
- Is it to supply homemade fertilizer for the farm?
- Is it to give the hired man another chore?
- Is it not, rather, to produce plenty of good milk?
- To be of real service to man-kind by converting feed that he cannot use into nourishing, appetizing food?
- While being kept for this purpose, does she earn a profit?
- Does she pay for her keep?
- Would you be better off if you sold the feed, instead of keeping some of the cows that you now have making a pretence of using it profitably?
- Does each one of your cows produce milk at a cheaper rate per hundred pounds than the factory pays?
- Does each cow in your herd produce milk or butter-fat at a good profit above the cost of feed?
- Do you think so, or just make a guess at it, or do you know for certain?
- How else is your labor to be paid for?
- Do you keep records, so as to find out these things, or are you content to keep a few poor cows in a behind-the-times style?
- Men who used to get only 3,500 pounds of milk and 133 pounds fat per cow, are now getting 4,900 pounds of milk and 186 pounds fat, since beginning to keep records.
- Would you not be glad to obtain a similar increase of over 40 per cent.?
- Then, keep records. C. F. W.

Dairymen's Convention at Saskatoon.

The farmers of the Prairie Province of Saskatchewan are being instructed in the advantages of mixed farming. A Government enquiry into the condition of the hog-raising industry was conducted in April, evidently with the view of increasing information on that line of business, and so booming it to some extent, and now, as a complement to that action, there has actually been held recently an enthusiastic dairymen's convention in Saskatoon.

It appears from the address of the Commissioner of Agriculture, Hon. W. R. Motherwell, that in the Dominion Government's campaign in 1897, which was conducted with the idea of diverting attention from exclusive grain-growing and assisting farmers during hard times, many mistakes were made. Creameries were established which had no chance of success. They should profit by those mistakes and not unduly criticise. The policy of the Provincial Government since the passing of the Dairy Act of 1906, had been to establish creameries only where they would be successful.

Mr. Motherwell said that butter could not be made on enthusiasm. It required cream. He appealed to the farmers to welcome the inspector and support the Department in its endeavor to increase the output and improve the quality of the butter made in Saskatchewan.

H. C. Lisle, M. L. A., Lloydminster, claimed that the mixed farmer was generally the most successful. In his own experience the best-paying items had been cows and pigs.

Dean Rutherford, who spoke on the manner of feeding cows to get the most out of them, said they should have good feed all the year round. He advised the sowing of grain mixtures at different times for pasture.

A significant statement was made by W. A. Wilson, Superintendent of Dairying, to the effect that Western dairymen were not supplying 40 per cent. of the Western demand for butter.

Among others, resolutions were passed expressing confidence in the Agricultural Department's policy in regard to the management of creameries, urging the Government to provide a system of cold storage for the Province, and also to give assistance in the introduction of improved dairy stock.

So successful had been the convention that it was agreed that it should be made an annual affair.

Prepare for Warm Weather.

Western Ontario cheese, up to June 1st, have, with few exceptions, been of fine quality, and, when everything is going along smoothly, we are liable to get a little careless; then warm weather suddenly comes on, difficulties immediately arise, and we have some of the old troubles to contend with, and perhaps a few new ones. It usually takes some little time to adjust ourselves to the changed condition. The milk from some patrons arrives at the factory overripe and tainted; some open, off-flavored cheese are reported, and we suddenly wake up to the fact that these difficulties must be met and overcome at once if we are to keep up the quality of our cheese during the hot months. Nature does so much for us in cool weather in the way of cooling the milk, preventing taints, heated cheese, and so forth, that we hardly realize the necessity for greater care during warm weather, until we are brought up short with complaints on quality.

THE PATRONS.

Build a milk-house, containing a tank preferably of cement, in which to cool the milk. It will cost very little, and will save much time and worry. Cool the night's milk as quickly as possible to 60 degrees, by placing the cans in the tank of cold water. As soon as milking is finished, put the covers on the cans. Milk does not require dipping, or pouring. Immediate cooling every night is the important point. If you cannot afford a milk house, at least provide a tank or tub in which to place the cans, surrounded with cold water. If you have ice, use in the water; if not, change the water a sufficient number of times to insure proper cooling. Use a thermometer; it costs very little, and will pay.

Encourage your neighbor to follow these methods. Point out to him that when the milk arrives at the factory it must be mixed, and that you do not intend he shall lower the quality of your milk by neglecting his own.

Pay particular attention to washing and scalding the cans, use a brush for washing. Milk cannot be free from taint, and in proper condition for making finest cheese, if stored in a can not properly washed. Discard the old rusty can. No person can wash it properly. It has served its time, and since becoming rusty has lost enough dollars through tainted milk to buy many new cans. No cheesemaker can possibly make fine cheese from milk that is overripe or tainted. Then,



Potato-planter at Work.

why attempt to supply milk that has not been properly cooled and stored? It means poor cheese, and less cheese per 100 pounds of milk.

Let every patron do his best to secure for his factory a reputation for finest cheese, which can only be brought about by each patron exercising care in the production of the milk.

Do not be annoyed, and talk of going to some other factory, if some morning the cheesemaker returns the milk. He would not do it if he thought it possible to make good cheese from it. He must be the judge of the milk, and, although anxious to secure all the milk he can get of good quality, yet, in justice to himself and to the other patrons, he is obliged to reject sour and tainted milk. He has no "grudge" against you. Remember, it is far better that a few cans of tainted milk should be rejected than that a whole vat of milk should be spoiled. The maker at the other factory has no desire to take in sour or tainted milk; then, why expect him to accept what your own maker tells you is unfit for making fine cheese? Instead, then, of finding fault because the milk is returned, look for the cause, and remove it.

The dairy instructors will come to the farm and help the patrons in every way possible, giving suggestions, and offering remedies for difficulties which may be met with in handling the milk.

THE CHEESEMAKER.

Keep everything in and about the factory clean and tidy, then insist on the patron sending sweet, clean milk in bright cans. If the whey has to be returned, send it home clean and sweet, properly pasteurized, if possible.

Be firm, but courteous, with the patron. A man who loses his temper is very likely to say things that he will afterwards regret. Reject milk that in your judgment will not make fine cheese. It is true that in some localities competition is keen, and a few patrons may, when the milk is rejected, talk about disposing of the milk in some other way, but this does not do away with the fact that milk is an article of food and must receive some care, whether it is made into cheese or some other dairy product.

Do not take in milk rejected at another factory. You are not likely to make any better cheese out of it than the maker who first rejected it. Co-operate with your neighboring makers on this point.

Use the curd test on tainted milk, and explain to the patron what causes the trouble. Do your best to impress on the mind of the patron the importance of cooling the milk and clean methods in production.

Visit as many of your patrons as possible; have the instructor do so, also. A few words of advice from yourself or the instructor will often save many dollars. It is the business of the instructor to improve the quality of the milk, of the cheese, and general dairy conditions. Help him all you can. Remember, the future of the business depends on quality.

Look out for the open, weak-bodied cheese. Be quick to note the necessary changes in method to prevent this condition.

Let everyone put forth his best efforts to make this year's cheese the very best on record.

F. H.

APIARY.

The Anatomy of the Honeybee.

The U. S. Department of Agriculture's recent publication, on "The Anatomy of the Honeybee," (Bulletin 18, Tech. Series, Bureau of Entomology), embodies the results of detailed studies, and should prove of value as bringing to beekeepers reliable information concerning an insect of such great economic importance, and also as furnishing a sound basis in devising new and improved practical manipulations. The subject has been for years the object of study of many careful students, but the popular demand for information has also induced untrained men to write accounts of bee anatomy containing numerous errors, and illustrated by drawings more artistic than accurate.

All practical manipulations of bees must depend on an understanding of their behavior and physiology under normal and abnormal circumstances, and this knowledge must rest ultimately on accurate information as to the structure of the adult bee.

Following a brief introduction, the author first gives a chapter on the "General External Structure of Insects," and then, taking up the honeybee, he gives a detailed description of the head of the bee and its appendages; the thorax, and its appendages; the abdomen, wax glands, and sting and alimentary canal and its glands. He discusses the circulatory and respiratory systems, the fat, body and the oocytes, the nervous system and compound eyes, and the reproductive system. The text is profusely illustrated, fifty-seven figures, including a full page median longitudinal section of the body of a worker, being used, all but three of which are new and original, having been

prepared by the author with a thorough realization of the need of more accurate illustrations of the organs of the bee, especially of the internal organs.

This bulletin can be secured only from the Superintendent of Documents, Government Printing Office, as the Department's supply is by law limited to an edition barely sufficient to furnish libraries and the collaborators of the Department with copies.

System Necessary for Success.

By Morley Pettit, Provincial Apiarist, Ontario Agricultural College.

Every beekeeper will admit that bees require a great deal of attention in the swarming season. If one yard is not to take all the attention, to the exclusion of other important interests, the apiary work must be whipped into line, with a well-regulated system. It is for the sake of getting a system that we recommend the weekly examination of each colony. This does not mean that every week every comb is to be taken out and examined, whether it needs it or not, but that each hive is to receive weekly what attention, external or internal, experience shows to be needful.

It has been found that, by adopting some system of management in this way, the bees can be left to themselves the balance of the week right in the swarming season, without loss. Provided, then, the apiarist has sufficient help to do the weekly work of one apiary in one day, the number of apiaries to which he or she can give personal attention is equal to the average number of fine days in the week. In localities where rain in summer is not a factor, 6 apiaries of 100 or more hives each are cared for by one man and his assistants.

There are other systems of management for the prevention of swarming which may suit some people better than the one described in "The Farmer's Advocate" for May 19th. But, after all, it is not easy to get away from the weekly visit to the apiary. I have often thought that an outyard was safe for two weeks, but generally found that the neglect cost me more than the extra visit.

QUEEN CELLS.

Now, in spite of all watchfulness and experienced care during the swarming season, hives will frequently be found with queen cells. There are three conditions under which queen cells are built: (1) Under swarming impulse; (2) when the queen is failing, and is to be superseded; (3) when the queen has suddenly disappeared.

1. For Swarming.—Number one is natural and deliberate, and easy to detect. Cells are started in convenient places, lower edges of combs, holes in combs, and the like. When the desire to swarm is acquired, and persisted in, the final remedy is to take away all the combs of brood, but the one which has the least brood, and give frames of wired foundation. This gives the condition of a natural swarm, and will usually satisfy the desire. The brood can be given to weaver colonies or used for making nuclei.

2. For Superseding.—Number two is also deliberate and it is not easy to say positively that a colony has built cells for the purpose of superseding, and not from swarming impulse. The scarcity and irregularity of brood and eggs is, of course, a good indication of superseding. In a complete non-swarming system the cells cannot be left, because the young queen will often take out a small swarm. Where indications point strongly to superseding, the old queen should be killed, and only one, the best-looking, cell left in the hive. Good, large, capped cells, from either swarming impulse or superseding, produce the best of queens. Spare cells can be saved by giving them to newly-made nuclei.

3. For Remoaning.—Queens sometimes die suddenly from various causes. Then, cells are built hastily on the sides of the combs wherever eggs or very young larvae are found. These cells are always easily distinguished, and this sudden queenlessness is proven by an entire absence of eggs and young larvae. All cells built under such conditions should be destroyed, as they are more than likely to produce poor queens. The colony is then hopelessly queenless. The best way to dispose of a queenless colony at any time is to unite it with one having a queen. This is easily done, as follows: Towards evening remove its cover, and spread over the frames a sheet of newspaper having a small hole in the middle. Place over this a nucleus having a good young queen. The bees will gnaw away the paper and unite peacefully. There should always be a supply of nuclei in the yard for this purpose, and for what increases is desired.

MAKING A NUCLEUS.

To make a nucleus, proceed as follows: When the main honey flow has well begun, place two combs of brood, mostly capped, and a comb having plenty of honey, in the super of a strong colony. At the next visit, a week later, bring Italian queens that have been secured from a reliable

queen-breeder, or good ripe cells of your own rearing, and proceed as follows:

First, examine the two combs of brood and destroy any cells that may have been started because of the excluder separation from the brood-chamber. Do this carefully, so as not to drive the bees down out of the super. You now have in this super a proper nucleus, with hatching brood and young bees which will not return to the parent-hive, and which will easily accept a strange queen, and, because of the week's separation from the queen, there is no open brood to perish from neglect. Now set the whole super gently off on a bottom board, contract the entrance to about two inches, introduce a queen or cell, and carry this new hive to its own stand, wherever desired. Nuclei should be made as early as possible, and not, as a rule, later than the middle of July. The safest way to introduce a new queen is to a nucleus, and the safest way to require a strong colony is to unite with a nucleus.

GARDEN & ORCHARD.

Some Good Old Apples.—IV.

In bringing up the names of some varieties of apples which are seldom planted in these days of commercialism, I speak more because of their real worth from the consumer's point of view than of their profit to the grower. For, until the public learns to distinguish between apples by reason of quality and flavor, instead of by outside appearance, such apples as the Baldwin will be the leaders; but may we not hope that in time, at least, a small portion of the public will be seeking for the highest excellence in these respects, and be willing to pay a higher price, according to real value. Forty years ago, great ignorance prevailed among our city cousins regarding varieties. I remember a lady visitor from Toronto, in the year 1870, to whom I was pointing out the different apples in my orchard. "Why," said she, "I always thought there were just two varieties, the Red and the Green."

In a recent article I spoke of the Lady Apple as a very choice little dessert apple, and perhaps I may be allowed to mention it again in this connection. It is a very old Roman kind, known in Italy as the Appian apple, and there so much esteemed that it gave rise to the proverb already quoted, "Omne malum malum, praeter Appium malum," meaning "Every evil is evil except the Appian apple," being a play on the word "malum." I have seen trees in the Niagara district with enormous clusters of this pretty little apple, so that it is evidently very productive, but the tree is a very moderate grower, and could not be made profitable unless one were making a special business of growing fancy table apples. Possibly a dwarf orchard of them could be made a paying investment if the fruit were put in fancy packages and put them on the markets.

The Swazie Pomme Grise is an apple that is too little grown. Its home is in the Niagara district, and it is said to have originated with Col. Swazie, somewhere near the Niagara River. Fifty years ago, nearly every orchard thereabout included at least two or three trees, and in my great-grandfather's orchard at Grimsby stood one big old tree, which we boys always claimed, and stored the fruit in the cellar for the Christmas season. I do not think we ever got more than three or four barrels in a season from that tree; it was thought too valuable for home eating to be offered for sale with the other kinds, and so we kept the best at home. Many a time in recent years have I regretted my foolish haste to turn everything into gold, which led to the destruction of that fine old tree and the loss of its golden fruit, which to-day I cannot buy with golden dollars.

The prominent characteristics of the apple in my memory is its delicate, crisp, fine-grained flesh, and its brisk, rich and delicious aromatic flavor. It was below medium in size, deep yellow when ripe, mostly covered with cinnamon russet. Its season was from December to March. I do not know of any apple I would choose in preference for dessert, unless it be the Snow, and after Christmas the Snow must certainly give place to the Swazie. It is time we paid some attention to these good old apples, not for the dollars, but for the enjoyment they give us, the increased interest in our home gardens, and the means they place in our hands of giving pleasure to our visitors. The home garden should receive more attention in Canada. It should have a collection of the very best of fruits, not for sale, but for home uses; and, if so planted, will be to the owner the most interesting part of his home surroundings.

LINES WOOLVERTON.

The season of 1909-10 was a record one for the export of apples from Nova Scotia. The total exports were 709,267 barrels, 628 half-barrels, and 1,554 boxes. Box-packing of choice does of apples is becoming popular with Nova Scotia fruit growers.

The New Destructive Insects and Pests Act, 1910.

Dr. C. Gordon Hewitt, Dominion Entomologist, reminds the public that by the passing of the Destructive Insects and Pests Act, the San Jose Scale Act is repealed. It will be seen, he says, that the new Act and regulations are of a wider character and of a far greater protective value to the fruit-grower and nurseryman. The fumigation regulations instituted under that Act have been incorporated in the new regulations, with certain alterations. Under the new fumigation regulations conifers will be fumigated. It is hoped that this will assist in preventing the introduction into nurseries of several species of woolly plant lice, which infest nursery stock, and which are carried in the same.

In addition to the fumigation regulations provision is made for:

1. The inspection at the points of destination of European nursery stock (which is still exempt from fumigation), and such other stock as it may be deemed necessary to inspect.

2. The destruction of infested stock and packages, etc., containing the same, and compensation for such matter as may be destroyed.

3. The inspection of orchards and nurseries, and the treatment of infested vegetation.

4. The prohibition of the disposal in any way of vegetation infested with insects scheduled under the Act.

5. The notification of the presence of any of the insects, pests or diseases.

In view of the increasing amount of nursery stock imported through the port of Niagara Falls, the importation season for that port has been extended, and stock may now be imported between October 1st and May 1st.

The attention of importers of nursery stock is called particularly to regulation 5, under which notification must be given of the importation of nursery stock.

All nursery stock, including European and such stock as is exempt from fumigation, may be imported only during the periods specified under regulation 3.

By the terms of the Destructive Insects and Pests Act of 1910, above referred to, the Governor-in-Council may make such regulations as are deemed expedient to prevent the introduction or admission into Canada of any insect, pest, or disease destructive to vegetation. Such regulations may prohibit the importation of suspected shrubs, trees or vegetables, or provide terms under which they may be imported, inspected, treated or destroyed. They can be made to apply also to infested trees or vegetable matter in the country which can be ordered to be destroyed, or the sale prohibited. The Act provides for the appointment of inspectors to carry out regulations. For breaches of the Act a fine of \$100 may be imposed, or six months' imprisonment, or both fine and imprisonment.

The following are some of the regulations established by the Governor-in-Council under the provisions of the Act:

Regulation 1 defines "Inspector." Regulation 2 prohibits importation of all infested trees, plants, etc., except as afterwards provided.

No. 3 provides that all nursery stock, including trees, shrubs, plants, vines, grafts, scions, cuttings or buds entering Canada shall be imported only through the ports and during the periods as follows: Vancouver, B. C., and Niagara Falls, Ont., from October 1st to May 1st, and Winnipeg, Man., and St. John, N. B., from March 15th to May 15th, and from September 26th to December 7th. At these points of entry stock must, with some exceptions, be fumigated before they can be taken out of bond. The exceptions include most greenhouse plants, all herbaceous perennials and bedding plants, bulbs and tubers, nursery stock originating in Europe, and cottonwood poplar from Dakota or Minnesota.

Importers of nursery stock must give notice to the Minister within five days of sending order, and again on arrival of shipment in Canada, according to regulation 5.

European stock may be allowed to proceed and be inspected at the point of destination, but must not be unpacked except in the presence of an inspector.

Inspectors are given large powers as to the treatment or destruction of infested stock, etc., whether imported or found in the country, so that the insect, pest or disease may be exterminated. Compensation not exceeding two-thirds of value will be allowed where stock is totally destroyed.

The Minister must be notified at once when any of the insects, pests or diseases specified are discovered.

The following are named as those to which the Act at present applies: San Jose scale, brown-tail moth, woolly aphis, West Indian peach scale,ypsy moth, potato canker and parasitic diseases of potato, white or stem canker, gooseberry midges, and white pine blister rust.

A memorandum has been sent out by the Commissioner of Customs to all collectors of customs, drawing attention to the regulations under "The

Destructive Insects and Pests Act," which came into force May 11th, 1910, and which are appended to the memorandum. Goods imported contrary to the Act are to be detained, and the collector is to notify the importer to that effect, and also that the goods will be destroyed unless the importer gives instructions to the collector without delay to have the same returned.

Prohibited goods, if to be returned, should be exported out of Canada without delay, in bond, otherwise they are to be destroyed.

The way land values have been jumping in the Niagara fruit district is simply astonishing. Sale after sale is cited, till the visitor's head fairly swims. The Clerk of Clinton Township, County of Lincoln, a conservative-minded man, says real-estate values in that township have quadrupled in the last ten years. One 64-acre farm, near Vineland, which sold four or five years ago for between five and six thousand dollars, recently changed hands at eighteen thousand. Another parcel of fifteen acres, without buildings, sold for a thousand an acre. By way of partial explanation of this sky-rocketing trend, we are informed by the Ontario Government's experts, who have been making a fruit survey of the township, that while the bearing peach trees number 32,000, the young trees not yet fruiting aggregate 64,000. The returns from fruit-growing, combined with its attractiveness and the desirability of the section from a residential standpoint, go to explain the inflation of values.

POULTRY.

Co-operative Egg Circles Organized in Peterborough County.

Heads of two great Canadian transportation companies, the C. P. R. and the Allan S. S. Co., visited Macdonald College, P. Q., recently, and looked over the ground to see whether it would be feasible to establish a 50,000-hen poultry plant to furnish dependable eggs for their dining-cars and steamships. They do not desire to go into the poultry business for its own sake, but they want to insure a large supply of eggs on which they can depend. Cost is quite a secondary consideration, if they can get the goods, but with all the twenty-five millions of dollars worth of eggs, more or less, marketed in Canada each year, the produce firm which supplies the Allan Steamship Line confesses that it simply cannot get enough absolutely reliable, choice, fresh-laid eggs to meet this company's requirements.

The Montreal firm of Gunn & Langlois, who supply the Allan Company, have forty-five candlers working three hours overtime, receiving \$1.50 to \$2.00 per day apiece, in an expensive warehouse on St. Paul St., Montreal, grading eggs, and enough are dumped out of this warehouse each year to buy a township.

It is estimated that about 17 per cent. of the cost of the eggs entering commercial channels in Canada goes out as waste, a dead loss, assessed by the inexorable average of commerce upon the producers of good eggs.

All over America the system of indiscriminate buying of eggs has prevailed. This system must be changed, if we are to get the most out of the produce.

When taken in at the grocery store, the eggs, good, bad, and indifferent—for the grocer takes many he knows are bad, for fear of losing a customer—are put in a back shed, perhaps, along with some onions, from which they absorb odors through their porous shells, and are left here maybe a week, exposed to a temperature of 100 degrees, which starts incubation in fertile eggs.

After the collector has received perhaps a cent a dozen, and 2 to 6 cents charge has been paid for transportation, the wholesaler candles the eggs, and takes out 2 to 4 dozen spoiled ones from each case.

Eggs have two values—an intrinsic value, and a relative value. Two cases of eggs of good quality may have the same intrinsic value, but the one may have a relative value for high-class trade 50 per cent. above the other, because the eggs are uniform in size and color, and attractively put up.

From three to six middlemen are taking toll of expenses and profits out of the eggs between the producer and the consumer in our larger cities, where, by the way, the net price of eggs in the smaller centers is largely regulated. It is roughly estimated that, of the twenty-five million dollars' worth of hen fruit marketed in Canada last year, the producers got about fifteen millions, the other ten millions representing the cost of getting this produce to the consumer.

The Poultry Department of Macdonald College sold all its eggs two years ago last winter at a straight price of 50 cents a dozen, a year ago at 60 cents, while last winter they were all taken at 70 cents.

Dressed poultry, unbled, was sold last fall and early winter in Montreal, through the Poultry-producers' Association, at 19 cents a pound for

selects (comprising about 40 per cent. of the whole), 16 cents for No. 1 grade (comprising about 50 per cent.), and 14 cents a pound for No. 2 (comprising the remaining ten per cent.). A dealer who had refused to entertain an offer of the goods at this price, when he saw some of it exhibited at the Quebec Poultry and Pet Stock Winter Fair in Montreal, declared that if he had known that was the kind of stock offered him, it would not have been a question of price at all; it would have been a question of getting the stuff.

Gunn & Langlois, of Montreal, have been buying fat hens for the Montreal Hebrew trade, at 14 cents a pound, in Peterborough and other points from farmers. A local buyer has been working in the same county, paying 11 cents a pound for the same kind of stock, selling to Gunn & Langlois at 14 cents, and pocketing the difference as his toll. At the same time, Macdonald College is selling similar stock for 18 cents a pound, and broilers at \$2.00 a pair.

The nearer the farm the eggs are candled, the better. The time will soon come when farmers will be candling their own eggs.

The present system of marketing eggs is shamefully wasteful and unbusinesslike.

As soon as a poultry circle has a brand with an unimpeachable reputation, it can dictate its own prices.

These sensational, but well-authenticated statements, made by reputable men speaking from actual knowledge, are some of the cannon shots from a battery of argument which has aroused the people of Peterborough County, where the preliminary organization of five Egg Circles was accomplished last week. The movement is an outgrowth of the propaganda conducted by Prof. F. C. Elford, Poultry Manager of Macdonald College, Que., the Canadian apostle of co-operation as applied to poultry marketing, and father of that important organization known as the Poultry-producers' Association of Canada. The formation of these local branch associations in Peterborough, the first important strictly co-operative egg or poultry circles in Canada, was due to the initiative and energy of a level-headed poultry enthusiast named John I. Brown, a native of Renfrew Co., Ont., who has recently become connected with the allied firms of Gunns' Limited, Toronto, and Gunn & Langlois, Montreal. Mr. Brown is a farmer's son who became interested in poultry, made a success of it, and has had considerable experience organizing the poultry industry on a somewhat different plan in the Ottawa Valley. One of his special missions in his present position is to organize the egg-and-produce business on a satisfactory co-operative basis, to the end that his firm may be able to secure a supply of reliable, choice-quality eggs and other produce to meet the large and growing demands of their trade. They have no desire to "hog" the business, and do not bind the egg circles to deal with them only, but naturally and reasonably expect, by fair treatment, to secure and retain a good share of the patronage from the circles they are directly instrumental in organizing. It is hoped that other firms will help to promote the movement in other localities. Mr. Brown selected Peterborough County as a starting point, and enlisted the ready co-operation of the Ontario Department of Agriculture, through its Local Representative, H. C. Duff, B. S. A., stationed at Norwood, a town 20 miles east of Peterborough. They have had the very effective assistance of Prof. Elford, as well as H. B. Cowan, of Peterborough. By personal canvass and meetings, farmers in the vicinity of Peterborough have been interested, and persuaded to organize. This they have done with considerable enthusiasm. The first of the five circles was started in the progressive dairying district of Central Smith, where, on the evening of Friday, June 3rd, a rally meeting was held, attended by editorial representatives of five leading agricultural papers of Canada, each of whom spoke briefly, following the organizers above mentioned, and a local man, T. D. Young, president of No. 3 Circle. The meeting was presided over by J. A. McGregor, of Peterborough, president of Circle No. 1. The secretary of this Circle is Wm. Scott. It is the intention to continue the work in Peterborough until the county is well organized, after which it is proposed to branch out elsewhere. While starting in a modest way with the egg business, it is expected to branch out later and take in the poultry, the cheese and the bacon business, and other lines of produce. The method of organization and proposed plan of operation are very simple, and it would appear that the scheme is not too ambitious to succeed.

ORGANIZATION, RULES AND REGULATIONS.

The circles are organized as branches of the Poultry-producers' Association, with which they are loosely affiliated. Their constitutions differ in details from that of the parent organization, though essentially the same. Each circle comprehends a convenient neighborhood, in one case a cheese-factory section. Officers consist of a president, secretary, and a board of three directors. The membership fee is \$1.00 per annum, of which about 15 cents will be laid out directly for stamps. The circles as now organized, are to

have one general Superintendent, to be appointed by the buyers, and his decision shall, in regard to the quality of the eggs delivered, be considered final. Anyone may become a member who is interested in the production of poultry products and will conform to the rules and regulations. Clause 7 we quote in full:

7. Rules and regulations pertaining to eggs:
 - (a) Only eggs gathered from regular nests may be delivered.
 - (b) Eggs must be delivered at least twice a week, except in winter months, when they must be delivered at least once a week.
 - (c) Eggs from found nests must not be delivered.
 - (d) Real small eggs or oversized eggs may not be delivered.
 - (e) Rough-shelled or ill-shaped eggs may not be delivered.
 - (f) Stale eggs may not be delivered.
 - (g) That all male birds be killed or removed from the flock as soon as the hatching season is over (June 1st).
 - (h) That all eggs produced by said flock shall be sold through the circle. This applies for one year only.
 - (i) That a member may deliver eggs from only his or her own flock.
 - (j) Notwithstanding anything heretofore set forth, patrons may keep for their own use any eggs required, and must not sell any eggs through the circle that do not comply with these rules and regulations.
 - (k) Eggs as gathered must be kept at an even temperature, as near to 60 degrees as possible, and be kept free from draft and dampness.
 - (l) That any bad eggs in any way delivered and paid for will, upon return of same to producer, be accounted for, if possible, and the loss made good to the buyer.

A Central Board is to be organized, consisting of two officers from each circle, provided for in the constitution. Mr. Duff will, in all probability, be secretary of this board. Every egg is to be stamped on its larger end with the number of the circle and the number of the member supplying it. If anything is found wrong with a single egg, the superintendent will hire a rig, if necessary, at the buyer's expense, and visit the producer from which it came, find out what was the matter, and return the egg, and receive a refund of its price. The idea is to keep everything absolutely straight, and educate the members in the production and marketing of first-class eggs. The collection of the eggs will be arranged by the Central Board, according to the most feasible plan. The one which appears most plausible is to have the eggs brought regularly to certain points, and have wagons call there for them. The wagons will start in some districts probably this week or next. The eggs will not be graded to color or size this year. That will probably come later. The eggs are to be paid for weekly, as soon as they reach the firm, with checks payable at par in Peterborough. Empty cases will be left off when full ones are gathered, and provision is made for collecting part of a case, as well as full ones. Mr. Brown has been cautious in promises as to price, but expects the firm will be able to do better than his promises. A premium of 2 cents a dozen is expected to be paid from the start over the current market price.

PICKINGS FROM THE SPEECHES.

H. C. Duff.—The only businesslike way to pay for any article is to pay for it on its merits.

John I. Brown.—We want to make money out of you people, by making money for you. There are plenty of people in the cities who want to buy choice fresh-laid eggs. We want to sell them, and we haven't got enough of them to sell. There are not enough eggs in Peterborough to supply one of our customers, the Allan Line.

T. D. Young.—Our cheese factory pays for milk by the per cent. of fat plus two, and the quality has greatly improved since we adopted the system. There is more injustice in laying good and bad eggs for the same price than in pooling proceeds from milk. For the last few years farmers have made no money more easily than what has been made out of the eggs.

Prof. F. C. Elford.—No farmer with one hundred acres should be without 100 hens. If properly looked after, they will pay the interest on the farm, say, \$300 a year. The poultry crop, if rightly handled, is pretty nearly independent of the weather.

F. Davey. This co-operative egg-circle movement has our most enthusiastic support.

W. D. Albright. Unlimited possibilities open out before us, if we will only learn to apply business methods to our work, and market an absolutely dependable product. If you go into this movement, stick to it through thick and thin. In the years of the compact.

"I'm sticking to it, it will carry you through it, and I'll be on my shoes again."

W. D. Albright. No section was more enthusiastic in its work and it is not surprising

that this should be the first district in Peterborough to organize a Poultry Circle.

W. L. Smith.—One of Prof. Elford's bulletins on poultry has been translated into Russian. Through co-operation, the Danes, inhabiting a country where one needs to wear an overcoat in the summer time, have become the most uniformly prosperous people in Europe.

Rearing Brooder Chicks.

Editor "The Farmer's Advocate":

I believe in brooders for chickens. Allow me to give you some of my experience with them.

I put 48 chicks in a brooder this spring, and as the eggs were mostly infertile, or with weak germs, the chicks could hardly be expected to be of the most vigorous description. However, they have now been in the brooder about four or five weeks, and out of the original number I have lost only two, not counting three that were worried by dogs. Of these two, one was a veritable runt, which never grew at all, and the other was "bandy legged" when taken out of the incubator. At another time I gave 75 chicks to about five hens, and the other 75 I put in the brooder. I lost about 20 per cent. of those with the hens, and only about 5 per cent. of the brooder chickens. I take great care not to overfeed the chicks during the first three or four weeks. They are much like little pigs in their gorging propensities.

Of those I lost that ran with the hens, some were trampled by the mother, and some were killed by hens who objected to a chick of another color straying into their coop. I do not put more than 75 into a brooder that is made to accommodate 100. I keep skim milk in a fountain before them all the time. I feed hard-boiled infertile eggs and oatmeal the first two weeks, then quickly substitute a dry mash of corn meal, sifted oatmeal, shorts, bran, or anything else that can be mixed into a balanced ration, giving a fair proportion of protein. A little hard grain is also given every day to keep the gizzards in working order.

I find the brooder saves a great deal of time and trouble. You feed a large number in one coop, instead of the same number in a lot of small flocks. You have not got to feed the brooder. Some hens will try to steal all the chick feed, and others will nearly starve themselves to death.

Then, again, a brooder makes no dirt of its own. It need only be cleaned out once or twice weekly when the chicks are small, if the floor is strewn thickly with dry sand. It will never desert the little chicks at a time when they still need protection from the cold spring nights. It does not care what color the chicks are, and has never been known to trample on them. The cost of coal oil, except in very cold weather, is hardly worth considering. Then you never have to race after the brooder during a thunder storm, in order to keep the chicks out of the rain. Some hens will squat in the middle of a five-acre field when a storm is on. I have no difficulty in getting chickens to weigh 2 lbs. in about two months when reared in a brooder. AMATEUR.

"Finishes Off" with Hens.

Editor "The Farmer's Advocate":

In reply to your request for incubator users to give their experiences, I give here answers to the questions you ask.

1. I have run an incubator for two seasons, and have certainly had a good two years' experience also.

2. The advantages of the incubator over the hen are many. Some of the main ones are: A larger number of eggs can be set at one time, thus giving you a flock of chicks of a uniform size, that can all be marketed at the same time. The incubator can be started at any time. With hens you have to wait until they take a notion to sit. It is less work to take care of the same number of eggs in an incubator than if they were under hens. It is cheaper to run an incubator than it is to allow the hens to stop laying and sit. Of course, you will have to feed the hens whether they are sitting or not, but the loss of eggs and cost of feed will amount to more than the cost of oil for the incubator.

3. Three gallons of oil, at 20c. per gallon, will easily run my 150-egg hot-water incubator for three weeks. Five minutes night and morning—ten minutes per day in all—will easily cover time required to attend to it. Put it at four hours for the three weeks, at 15c. per hour, making 60 cents. This, with the oil and 5 cents for a lampwick, makes \$1.25 for running a 150-egg machine three weeks.

4. I only allow the eggs to remain in the incubator for 10 to 14 days. I test them about the 10th day, and then put them out under hens to finish hatching. I have never (with my mass of incubators) been able to get a good hatch where the eggs were left in the machine for the full three weeks. There were always a number dead in the shell. This is overcome to a large extent by giving them to hens and moistening

them two or three times in the last ten days if the hen is up off the ground. I may say that I always try to set my hens on the ground so that there will be a certain amount of moisture from the ground. I have also found that by following this plan I have had no trouble with white diarrhea or bowel trouble in the young chicks.

6. As may be inferred from the above, I allow the hens to have the chicks, giving each hen from 15 to 30, according to the time of year. I think that the chicks do better when with the hen. I have found that the chicks that have been hatched under hens or "finished off" under hens are healthier than when they come out of the incubator. Of course, I am not condemning incubators for hatching chicks. I am simply stating my own experience with my particular make of incubator. C. H. R. York Co., Ont.

THE FARM BULLETIN.

Improving Country Life.

A movement designed to be of far-reaching benefit was recently launched at Bellefontaine, Ohio, the gathering being designated a Country Life Institute. It was attended by leaders in educational, agricultural and religious affairs in Ohio and other States. The two days' discussion focussed upon the relation of the country church and the country community. With entire unanimity it was concurred that the country church should be for the neighborhood in which it stands a "Community Center," identifying itself with and seeking in a sympathetic spirit to promote every interest of the people morally, socially and economically. The principle of unity or federation among the churches for practical service was commended, and their co-operation with the public school, the Farmers' Institute and other agencies advised. A policy of rural church financial reconstruction was approved, in order that churches and ministers enjoy living conditions on a par with the economic standards of the community. The Institute declared in favor of a regenerated rural school, in order to a higher standard of educational facilities by consolidation and scientific training designed to promote the prosperity of the people. Recreation in the interest of moral training and the extension of the "play-ground movement" was endorsed. The ground was taken that these principles and methods are to be so applied as to advance the moral and spiritual interests of the people.

The Derby Winner.

The 56th annual Derby race, which was run at Epsom Downs, England, on June 1st, was won by Mr. Fairie's three-year-old colt, Lemberg, son of Cyrene, ridden by the English jockey Dillon. Lemberg broke all records for the Derby, doing the distance in 2:35. The best previous record was made in 1906 by Major Loder's Spearmint. He went the course in 2:36 4-5, the distance being one mile and a half. Second to Lemberg was Lord Villier's Greenback, by St. Frusquin, and third A. P. Cunliffe's Charles O'Malley, by Desmond.

On account of the working of the Seed Control Act, wholesale dealers in seeds have become much more particular as to the class of seeds they buy, and are making a greater difference in price between ordinary and first-class seed than ever before. Owing to the keen discrimination by such dealers against buckhorn in clover seed, many farmers who had seed to sell the past season have learned what buckhorn seed is like, and will be able to detect it in future. A further move on the part of the Seed Branch towards the production of clean seed is now being made. T. G. Baynor, Ontario representative of the Branch, is at present securing a man from each of the seed-producing counties in Ontario west of Kingston—about twenty-five in all—who shall spend three weeks in a tour among the farmers of his county. His duties will be to visit seed-growers, and in a friendly way to point out the advantage to themselves of producing only clean seed, and make suggestions and give instructions as to how this can best be done. The campaign is to be entirely educational. Attention will be drawn to the presence of any noxious weeds in the crop intended for seed, and the wisdom and economy of destroying these with spade or scythe before the seed begins to ripen will be emphasized. Instruction literature will be distributed also, and it is expected that by these means the purity and value of Canadian-grown will be much improved.

It is well to beware of soft drinks as well as of hard ones. The manufacturers of two of these soft drinks in the United States have been found adulterating them with cocaine and putting it on the label. The evident purpose of this adulteration was to develop an appetite for more of the same.

The Farming Faith of Norfolk.

To appreciate afresh the powerful influence of demonstrated ideas, one cannot do better than take a jaunt over the country roads and some of the railway lines that net the County of Norfolk, Ont. Simcoe town is a county seat to be proud of, and it is backed by a go-ahead farming country that has faith in itself. For a neighborhood, a township, or a county, it is a fine thing when it begins to realize the possession of certain resources, to be made more of by judicious labor and enthusiasm. Such inspiration makes opportunity. Incidentally, it lifts communities out of the narrowing effect of small talk and gossip by engaging their attention with larger interests and the cultivation of those co-operative and friendly relations that make life worth living, and farming a real success.

Though a county of but moderate size, Norfolk makes a good showing in such staples as winter wheat, oats, corn, which in husked product has passed the million-bushel line, with larger possibilities ahead; in horses, for which it is justly famed; and in canning crops for the great factories at Simcoe, Delhi and Waterford. Hamilton and Toronto draw upon Norfolk farms for cream; South Middleton and Tillsonburg condensaries absorb the product of the cows, in addition to what goes into cheese and butter making, and local town supplies.

But it is in apple-orcharding that the county has found itself particularly famous, and with a climate approximating the adjacent Niagara peninsula, and tempered by Lake Erie, it is not surprising to find peach, plum and pear culture on the increase, with magnificent strawberry patches spreading out, one on the J. E. Johnson farm, just north-east of Simcoe town, covering some 20 acres. This farm is devoted to peaches, pears, plums, fancy apples, as well as small fruits, together with corn and some field crops for feeding. A silo is used, and a bunch of cattle fed in winter. In his Kieffer pear plantation, he is trying the plan of spreading out with common apple-barrel hoops and cord the limbs of young trees that have a tendency to head too close together.

When readers of "The Farmer's Advocate" stop to think that 300 or 400 farmers in a given district have taken up apple-growing in earnest, according to modern methods, it means something. Old orchards are being regenerated, and new plantations established, some of them 50 acres in area, possibly on lands, in some cases, that will need a good deal of feeding. In the main, the people are holding to the winter varieties. On this point, however, their ideas do not quite run parallel with those of the head of the Fruit Division, in the Department of Agriculture, at Ottawa. Time will tell.

In Norfolk we have the idea again exemplified that a crop of apples will not come out of nothing, any more than a crop of corn or wheat. So the soil is tilled and fertilized with manure and clover, etc.; the trees are pruned and sprayed on about the same plan as "The Farmer's Advocate" demonstration orchard at Lambeth, in Middlesex County.

It is a revelation to go into a 40-acre block of apple trees, mostly Spies, Baldwins and Greenings, like the orchard recently acquired by Mr. Johnson, a couple of miles south-west of Simcoe, and see not a stray sucker nor useless limb nor canker spot that had not been scraped out with the knife and treated with corrosive sublimate; the ground, under the extension disk harrow and other tools, as clean and mellow as a garden, and the trees themselves a perfect paradise of bloom, awaiting the third spraying, when, like a spring snowstorm, the blossoms had fallen. It will be a wonder if such a proposition does not turn in this

season about \$5,000 over all expenses. Orchard- ing is going ahead as with "seven-league boots." "We have Jas. Johnson here, and the Norfolk Co-operative Fruit-growers' Association," remarked an alert local journalist, "and things are going some."

In many ways the Local Representative of the Provincial Department of Agriculture, and teacher of the High-school Agricultural Class, P. E. Angle, B. S. A., and his assistant, Wade Toole, a third-year O. A. C. man, have faithfully, and with discretion, put themselves at the service of the county farm interests. Mr. Angle came in June of last year, and Mr. Toole in April, 1910, succeeding A. G. Turney, B. S. A., who was called to New Brunswick, after being only a few months in this office. "So many apparently promising lines of work press us for attention that it is difficult sometimes to discriminate in favor of what will prove in the end most useful," observed Mr. Angle.

This spring Mr. Toole spent several weeks going from orchard to orchard, giving assistance with spraying outfits, which, to beginners, give trouble sometimes with the preparation of lime-sulphur, Bordeaux mixture, and other mixtures, and explaining the exact nature of the particular pests for which the treatment is intended. Specific information re the production of dairy herds and poultry flocks is being collected, with a view to increasing the production of these two important classes of farm stock.

The sandy-loam soils of Norfolk make a natural home for poultry, which fits in admirably with fruit-growing, and, by improving the farm poultry-yard and marketing methods, there is assuredly a large future for the industry.

Some useful drainage-survey work has been done, cow-testing encouraged, samples of milk tested for dairymen and others, and quantities of corn and potatoes distributed, with typewritten directions, for trial plots, with the object of establishing improved varieties of seed and systematic seed selection. Young men are naturally becoming interested in this work, as they were, along with the agricultural public generally, in the three-days' stock-judging course in February, attended by from 100 to 250 per session, under the auspices of the Simcoe Farmers' Institute Club, the Agricultural Society, and the North and South Norfolk Farmers' Institutes. It proved one of the most instructive events ever held in the county.

Simcoe has one of the model autumn county exhibitions of Canada, and Mr. Angle has this year been elected superintendent. He has grass, clover and some other special plots growing on the grounds. He started an agricultural class of five in the High School last September, a couple of whom contemplate going to the O. A. C. at Guelph subsequently. It has been fairly well sustained, and additions are expected next term. In addition to this, a six-weeks' course in agriculture, covering a study of seeds, farm chemistry and bacteriology, soil fertility, cultivation and drainage, farm botany and entomology, and stock-judging, was conducted in January and February last, and was taken by 25 young men.

While not exactly a branch of Southern Ontario agriculture, the Provincial forestry plantation in Walsingham Township is destined to be a far-reaching benefit, by recovering with pine and other forest trees the "blow-sand" area in this corner of Norfolk, and in supplying seedlings for schools and waste places all over Ontario. This work is directed from the Agricultural College, at Guelph. To the horticulturist interested in flowers, Norfolk County is notable as the home of H. H. Groff, whose marvellous work in gladioli improvement at his place near Simcoe has given him world-wide fame.

South Perth Notes.

The early spring is not so early, after all. Growth is little, if any, ahead of an average year, and, what is worse, the cool, comparatively dry weather has enabled the wire and cutworms to overtake the growth, so that spring crops and grass on high, light land are, in many places, badly thinned out. Wheat has also suffered. So great has been the damage that some are plowing up and re-sowing; others are broadcasting millot and harrowing, hoping thereby to get a mixed crop. However, these practices are by no means general, and the advent of settled warm weather would yet bring a fair crop. Low, rich land has generally escaped injury, and perhaps high, rich land would, also, but all the high spots are poor in this locality, having been cropped more, because drier, and also because of fertility washing to lower levels. First and second crops on old pastures, of course, are the worst. It looks as though we will have to break up sod at least every second year, or cease destroying the robins and blackbirds. It would pay every farmer to have a good-sized orchard, with a thick wind-break of evergreens on two or three sides, to encourage the birds to nest. The cherries can be protected, but if they did run away with a bushel or so, it would be only small pay for their services. The larger birds, such as crows, hawks and owls, can easily be dispensed with. Field mice never become real pests, and any dog will clean them out in harvest time, so that we need not preserve our wood-lots for this purpose; besides, these birds of prey scare away the smaller and more beneficial ones. Blackbirds and robins are great for getting outside of cutworms when the plow is going. I happen to be living where there are many trees growing near the house—soft maple, evergreen, apple, etc., and it is very interesting to watch the antics of the various kinds of birds which are nesting. A pair of orioles wove their nest to a swaying limb in full view from the veranda; a pair of bluebirds chased an inquisitive red squirrel from their nest in a post of the fence. Robins, swallows, kingbirds, blackbirds, woodpeckers, graybirds, canaries, humming-birds, and some others which I can't name, are frequent visitors, and probably have nests nearby. If for no other reason, I would want trees near the house, instead of half a mile away, where our wood-lots are now standing.

Near-by is a small patch of alfalfa. It was sowed on level, but well-drained, fairly-rich clay loam a year ago, on barley, following roots. It keeps well ahead of the red clover and timothy beside it, and is a real good stand. Twenty pounds to the acre, and three bushels of barley, were sown. The way the hens go for it is a revelation, at least to the writer. It makes eggs, too, although they are fed grain, also. Unlike larger stock, they don't wander all over the field, destroying as much as they eat, but keep it cleaned off close, as they require. Whether they will seriously injure its growth, remains to be seen, but it is surely a cheap way of feeding hens.

Wheat is doing fairly well now, but spring grains and pastures are backward. New seedings are poor, averaging, maybe, forty per cent. of a good crop. Prospects for fruit-setting are rather poor, because of cold, wet weather, which hinders the bees and other insects from fertilizing them. Sheltered orchards, and those having hives of bees in them should do best, other conditions being equal. It is hard on the bees, too. They are building up but slowly, getting scarcely enough nectar to keep them going. J. H. BURNS.
Perth Co., Ont.



Norfolk County, Ont., Judging Class, with A. E. Yeager's "Sensation" Under Review.

Fruit Prospects in Canada.

The prospects for fruit are good, according to the first report of the Fruit Division, issued May 31st. Some damage from frosts in the early part of May was done to early-blooming varieties of fruit in some sections, but, on the whole, fruit seems to have "set" well.

On nearly all varieties of apples there has been an abundant blossom everywhere. The prospects from all districts are for a good to large crop.

In all districts, pears blossomed heavily, though damage from frosts is reported from Nova Scotia, the Essex peninsula, and the inland counties of Ontario.

Plums, peaches and cherries all bloomed profusely, and promise well, though late frost has caused damage in some districts, especially to plums.

Small fruits will be good on the whole, though in several districts the first bloom of strawberries was killed by frost.

Aphids are not so prevalent as last year, but some of the other insect pests are more numerous.

In the Middle West States there will be a light apple crop, but in the Pacific States, and those in the East, prospect are good.

Westerners Buying Foundation Stock.

A shipment of 52 head of pure-bred live stock started for the West from Ontario last week under the auspices of the Live-stock Associations. It comprises 11 head of Ayrshires, 11 Jerseys, 1 Holstein, and 3 Shorthorns; 1 Percheron, 1 Standard-bred, 2 Shires, 9 Clydesdales; 6 Berkshires, 1 Yorkshire, 3 Southdowns, and 3 Shropshires. Of these, 20 head went to Manitoba, 11 to Saskatchewan, 8 to Alberta, and 13 to British Columbia. The stock was forwarded in two long palace cars and three short ones. Mr. Elderkin, of the Live-stock Branch, at Toronto, informs us that more stock has been sent out by the Associations this spring than for two or three years past. A singular fact is the unusually large proportion of females, apparently indicating that breeders in the West are desiring foundation stock for pure-bred herds, studs and flocks. Out of 26 cattle, only 7 were bulls, while 5 out of 13 equines were stallions, and so on.

A Great Jersey Sale.

At the annual sale on May 30th of imported and home-bred Jersey cattle, the property of T. S. Cooper & Sons, of Coopersburg, Pennsylvania, 131 head were sold for an average of \$693. The highest price of the day was \$11,000, for the three-year-old American-bred bull, Sultana's Oxford Lad, sold to Mrs. Henning, owner of Allandale Farm, Shelbyville, Ky. The twelve-year-old cow, Golden Sultana, sold for \$3,700 to M. E. Beltzhoover, Arlington-on-Hudson, N.Y. The 12-year-old cow, Golden Fern's Sensation, went to Gedney Farm, Marlboro, Mass., for \$1,550, and heifer calves from the two cows last named brought \$1,750 and \$1,125, respectively. Showers somewhat dampened the ardor of bidders, and interfered to some extent with the success of the sale, which to most readers will doubtless appear to have been tolerable.



Sultana's Oxford Lad 76506, A. J. C. C.

Best bull, sold for \$11,000 at T. S. Cooper & Son's sale, at Coopersburg, Pa., June 30th, 1910.

Prof. J. A. McLean Joins "The Farmer's Advocate" Staff.

The steady growth of "The Farmer's Advocate," entailing an annually increasing burden of correspondence, especially of questions to be answered through the paper, has rendered necessary a reinforcement of the editorial staff, permitting more specialization than has hitherto been possible, to the end that a wide and active outlook may be maintained over the whole field of agriculture and stock husbandry. The publishers of "The Farmer's Advocate" are pleased to announce that they have secured the services of J. A. McLean, B. S. A., who first saw the light of day on his father's 350-acre farm at Ormond, Dundas Co., Ont., where he afterwards put in many an honest day's work. Holstein cattle and a few Clydesdale horses were the features of the stock department on this farm. In 1902, Mr. McLean graduated from McMaster University, Toronto, in the same class as his room-mate, Prof. H. S. Arkell. Afterwards, he filled the position of Resident Master at the Ontario Agricultural College, and then went to the Iowa Agricultural College at Ames, graduating in 1905 with the B. S. A. degree. As a student, he was a strong man, representing the Iowa College in the students' judging contest in 1904, when the horse trophy was won by it for the first time. Since graduation, he has spent one year in Colorado, as head of the Animal Husbandry work; two years at Ames as Associate Professor of Animal Husbandry, and two years in charge of the Animal Husbandry Department at the Mississippi Experiment Station, which he left May 31st to come to London. He has had some experience as a contributor and departmental editor of various publications, and is well and favorably known among the live-stock fraternity of America.

Twenty-six More B. S. A.'s.

The following O. A. C. candidates have completed the examination for the degree of Bachelor of Agriculture: W. L. Bengough, W. Bowman, J. F. Carpenter, R. H. Clancy, G. W. Collins, R. B. Cooley, W. E. J. Edwards, F. E. Ellis, R. Fraser, J. F. Harries, S. Kennedy, C. M. Learmonth, J. C. Lloyd-Jones, D. E. McRae, P. H. Moore, R. L. Moorehouse (aeg.), S. J. Neville, F. C. Nunnick, W. R. Reek, E. Robinson, A. M. Shaw, A. S. Smith, A. Snyder, S. E. Todd, J. D. Tothill, O. C. White.

The following candidates must pass supplemental examinations in the subjects indicated: G. C. Cunningham (French or German), H. L. Knauss (English), J. Laughland (English, chemistry of insecticides and fungicides).

During the month of April, immigration into Canada was at the record rate of 1,600 per day, of whom almost 700 came from the United States. The total for the month was 48,267, an increase of 99 per cent. over April of 1909. Though the figures for May are not available, it is known that they will exceed those of April. For the first quarter of 1910 the total immigration has been 98,132, as compared with 49,568 for the first quarter of 1909.

The principles so effectively illustrated by those Hungarian pot experiments with legume-inoculating material and fertilizers (for account of which see "The Farmer's Advocate" of June 2nd), are of vast importance. Best results were obtained from inoculating with cultures of the nitrogen-gathering bacteria, and fertilizing with potash and phosphorus. The bacteria supplied the nitrogen requisite to make a complete plant ration. When it is understood that potash and phosphoric acid may be purchased for four to six cents a pound, while nitrogen, in the form of commercial fertilizers, costs about eighteen cents, the economy of the above means of soil improvement is at once apparent. Of course, these pot experiments, being conducted with a poor, sterilized quartz sand, showed a much-exaggerated benefit both from the inoculation and from the fertilizing, but the principle is of quite general application. Fertilizing, where necessary, with the two mineral elements of plant food, and supplying nitrogen and humus by the growth of legumes (inoculated, if necessary), is sound economic practice in orcharding and field agriculture, and worthy of more general adoption.

The "lure of the West" has been felt in Prince Edward Island, as well as in other Provinces of the East. On many fine farms no one but the old folks are left, the sons having gone to the Prairie Provinces, or further West, or to the cities of the United States and Canada. However, an immigration agent, in the person of Rev. J. W. Winfield, was appointed last year, and he has been conducting an active immigration campaign in England, with a view of repopulating the Island. He landed lately with a part of forty-nine men, women and children, settlers of a most desirable type. Fifteen of the men hired out with farmers on their arrival; the others are negotiating for the purchase of farms.

The officially supervised yearly testing of pure-bred dairy cows, in connection with the various Records of Performance, is progressing steadily. Already there is a notable demand for stock bulls from proved producing strains, says Dan Drummond, of the Live-stock Branch, Ottawa, who has charge of the inspection work. But far more important than the resultant effect in the improvement of stock, he adds, is the effect on the men. The man is the greatest factor in dairying, and the only factor in citizenship. The inspiration, knowledge, study and intelligence fostered by this testing work must and does develop a race of educated dairymen and dairy-stock breeders. That gain is invaluable.

There was no problem in preventive medicine of greater significance than that of removing the dangers which exist in the ordinary market milk, said Dr. J. C. O. Hastings, in introducing the report of the Ontario Milk Commission to the meeting of the Canadian Milk Association in Toronto last week. Through the increase of pasteurization methods, almost half of the total milk supply of Toronto could now be guaranteed free from disease-producing germs. Interest in this work was increasing, and it is hoped that in a short time, through the efforts of the Commission, in co-operation with Dominion, Provincial and municipal governing bodies, Canada would have the safest milk supply of any country.

Of the 137 animal brains examined in the laboratory of the Provincial Board of Health, said Dr. J. A. Amyot, in an address last week, some 65 or 70 have proven positive cases of rabies. Sixty-one patients have been given the Pasteur vaccination treatment, and so far no ill-effects of any kind have been noticed in any of them. The rabies situation is still a serious one, but is confined to Western Ontario.

During April, almost twice as many samples were sent in to be tested in the Seed Laboratory, at Ottawa, as in the same month of last year. Fifty-five per cent. of the 924 samples examined were sent in by seed merchants. Only 40 per cent. of the samples of red clover seed were sufficiently clean to be classed as No. 1, 10 per cent. were prohibited, and 50 per cent. were salable, but not No. 1.

The demand for alfalfa seed has been unusually strong in Canada this season. Retailers report that their stock of that seed was sold out early, and that they were unable to secure further supplies from the wholesalers.

We are asked to announce a change in the date of the extension from Lincoln County to the Ontario Agricultural College, from June 11th to June 15th.

Bank of Toronto

A MONEY MAGNET

One advantage to you of a Savings Account at The Bank of Toronto is that it draws to itself many odd sums of money that can easily be spared, and your balance will therefore be a growing one.

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MARKETS.

Toronto.

LIVE STOCK.

At West Toronto, on Monday, June 6th, receipts of live stock numbered 117 cars, comprising 2,596 cattle, 107 hogs, 69 sheep, 162 calves. The quality was good, and trade active, at 10 cents to 15 cents per cwt. higher prices for cattle. Exporters, \$6.75 to \$7.75; bulls, \$5.50 to \$6.50; prime picked butchers, \$6.90 to \$7; good, \$6.50 to \$6.75; medium, \$6 to \$6.40; common, \$5.50 to \$6; cows, \$4 to \$6.25; milkers, \$40 to \$65; calves, \$3 to \$6.25. Sheep—\$4.50 to \$5; rams, \$4 to \$4.50 per cwt.; spring lambs, \$3 to \$6.50 each. Hogs—Selects, fed and watered, \$9.50, and \$9 to \$9.10, f. o. b. cars at country points.

REVIEW OF LAST WEEK'S MARKET.

The total receipts of live stock at the City and Union yards last week were:

	City.	Union.	Total.
Cars	242	152	394
Cattle	2,848	2,758	5,606
Hogs	8,084	1,531	9,615
Sheep	1,055	135	1,190
Calves	799	186	985
Horses	1	88	89

The total receipts of live stock at the City and Union yards for the corresponding week of 1909 were:

	City.	Union.	Total.
Cars	202	135	337
Cattle	2,859	2,461	5,320
Hogs	3,371	1,270	4,641
Sheep	731	78	809
Calves	940	201	1,141
Horses	5	127	132

The above figures show a total increase in the combined receipts of live stock at both yards over last year of 58 carloads, 283 cattle, 1,974 hogs, 381 sheep; but a decrease of 156 calves and 13 horses.

It will be seen that the receipts of cattle were again large, but more could have been sold. At the Union yards on Monday, when 107 carloads were on sale, about 70 loads were of the export class. The quality was good, trade was active, all offerings being sold before the close of the day. Prices for the best exporters were 10c. to 15c. per cwt. higher, and medium cattle about steady, at the previous week's quotations. Butchers' cattle were firm, but no lighter. These conditions ruled at both markets during the week.

Exporters.—Prices ranged from \$6.50 to \$7.50, but only two loads brought the latter price. Export hogs sold at \$6.65 to \$7. Export lambs, at \$4.50 to \$6.35.

Butchers.—Prime picked butchers sold at \$6.85; loads of good, \$6.50 to \$6.75; medium, \$6 to \$6.40; common, \$5.50 to \$5.90.

Stockers and Feeders.—Cattle sold from \$4 to \$4.75; feeders, \$2.25 to \$3. Some unfinished cattle, \$2.50 to \$3.50.

porters, were taken back to the country as short-keep feeders, at \$6.50 to \$6.75, their weights being 1,055 to 1,156 lbs. each.

Milkers and Springers.—There was a good demand all week for milkers and springers of quality, at firm prices, ranging from \$40 to \$70 each. The principal demand was from Montreal and Quebec Cities.

Veal Calves.—Receipts of veal calves have been fairly large, with prices steady to firm, at \$3 to \$6.50 per cwt., or an average of \$5.75 per cwt. all round.

Sheep and Lambs.—Ewes sold at \$4.50 to \$5.25 per cwt.; rams, \$4 to \$4.50; spring lambs, \$3.50 to \$6.50 each.

Hogs.—The tendency of hog prices since the beginning of the week has been downwards, and at the close, selects, fed and watered at the market, sold at \$9.65, and \$9.30, f. o. b. cars at country points.

Horses.—The trade in horses at all the different sale stables is still very quiet, with receipts light. J. H. Smith, manager at the Union Horse Exchange, reports having shipped two carloads to the Northwest, and two cars to British Columbia, as well as several cars to Northern Ontario. Prices ranged as follows: Drafters, \$200 to \$230; general-purpose horses, \$175 to \$210; expressers, \$150 to \$230; drivers, \$100 to \$225; serviceably sound, \$35 to \$80.

BREADSTUFFS.

Wheat.—No. 2 white or mixed winter, 90c. to 95c., outside. Manitoba—No. 1 northern, 92c.; No. 2 northern, 90c., track, lake ports. Rye—No. 2, 67c. to 68c. Peas—No. 2, 70c. to 71c., outside. Buckwheat—No. 2, 51c. to 51½c., outside. Barley—No. 2, 52c. to 53c.; No. 3X, 51c.; No. 3, 47c., outside. Oats—Ontario, No. 2, 33c., at points of shipment. Corn—No. 2 yellow, 65c.; No. 3 yellow, 64c.; Canadian corn, 60c. to 61c., Toronto freights. Flour—Ontario 90 per cent. winter wheat patents for export, \$3.60 to \$3.65, in buyers' bags, outside. Manitoba flour prices at Toronto are: First patents, \$5.80; second patents, \$4.80; strong bakers', \$4.70.

HAY AND MILLFEED.

Hay.—Baled, in car lots, No. 1, \$15; No. 2, \$14, on track, Toronto. Straw.—Baled, in car lots, track, Toronto, \$7.50 to \$8. Bran.—Ontario bran, \$20, in bags. Shorts, 50c. more, track, Toronto.

HIDES AND WOOL.

E. T. Carter & Co., 85 East Front street, have been paying the following prices: No. 1 inspected steers and cows, 11½c.; No. 2 inspected steers and cows, 10½c.; No. 3 inspected steers, cows and bulls, 9½c.; country hides, 9c. to 10c.; calf skins, 13c. to 15c.; horse hides, No. 1, \$2.75 to \$3; horse hair, per lb., 30c.; tallow, per lb., 5½c. to 6½c.; sheep skins, \$1 to \$1.25 each; wool, unwashed, 13c.; wool, washed, 20c.; wool, rejections, 15c.

COUNTRY PRODUCE.

Butter.—Receipts heavy. Market weak, and prices still lower. Creamery pound rolls, 23c. to 24c.; separator dairy, 21c. to 22c.; creamery solids, 22c.; store lots, 18c. to 19c.

Eggs.—Receipts liberal; prices easy, at 20c. to 21c.

Cheese.—New cheese is plentiful, at 12c. for large, and 12½c. for twins. Old cheese sells at one cent per pound more.

Beans.—Market quiet. Trade steady, but little doing. Prices are the same, \$2 to \$2.10 for primes, and \$2.15 to \$2.20 for hand-picked.

Potatoes.—Receipts liberal, but prices are a shade higher. Ontarios, 28c. to 30c. per bag, for car lots, on track, Toronto, and New Brunswick Delawares, 45c. to 48c. per bag, track, Toronto.

Honey.—Market easy. Extracted, nominal, at 10½c.; combs, lower, at \$2 to \$2.50 per dozen sections.

Poultry.—Receipts continue to be light, although spring chickens, "chickens," are more plentiful, with prices easier. Turkeys, 17c. to 20c. per lb. dressed; fowl, 15c. to 17c.; spring chickens, 35c. to 40c. per lb.

FRUITS AND VEGETABLES.

Onions, per sack, \$2.50 to \$2.75; cabbage, new, \$1.65 to \$2 per crate; strawberries, 14c. to 16c. per quart, by the case; tomatoes, six baskets in case, \$2.50 to \$3.50; potatoes, n.w., per barrel, \$6.

Montreal.

Live Stock.—During the month of May the export of cattle from the port of Montreal amounted to 6,962 head, as against 14,173 head for May, 1909, being a decrease of over 50 per cent. Ocean freight rates hold about steady, being 20s. per space to Liverpool and London, 25s. to Glasgow, and 17s. 6d. to Manchester.

In the local market quite a number of bulls were offered, and the range of prices for several choice lots was from 6c. to 6½c. per lb. Others sold down to around 5½c. per lb. Choice steers sold as high as 7½c. per lb.; fine brought about 7c. per lb., good 6½c. to 6¾c., medium 5½c. to 6c., and common down to about 4½c. per lb. Supplies of sheep light; prices 6c. per lb. for yearlings, and 5c. to 5½c. for old sheep; spring lambs, \$3 to \$6 each. Calves scarce and firm, at \$3 to \$5 each for poor, and \$6 to \$10 for best. The market for hogs was high, selected lots sold at 10½c. to 10¾c. per lb., weighed off cars.

Horses.—Manitoba buyers still in the market and prepared to pay high prices. A fair demand also from farmers and carters for the quality they respectively require. A small shipment has been sent to Vancouver, the quality being good, heavy animals. Prices as follows: Heavy draft horses, weighing from 1,500 to 1,700 lbs., \$250 to \$300 each; light draft, 1,400 to 1,500 lbs., \$200 to \$250 each; light horses, weighing from 1,000 to 1,100 lbs., \$100 to \$175 each; inferior, broken-down animals, \$50 to \$100 each, and choice saddle and carriage horses, \$350 to \$500 each.

Dressed Hogs and Provisions.—Dressed hogs sold at 14½c. to 14¾c. per lb., for choicest fresh-killed, abattoir-dressed. Demand for hams and bacon active, and market strong. Prices steady, at 19½c. per lb. for English, boneless, selected bacon, and 19c. for thick. Hams steady, at 16c. to 20c. Barrelled pork sold at \$27 to \$33 per barrel, and beef at \$18 per barrel. Lard compound brought 12½c. to 14c. per lb., and pure brought 16½c. to 17½c. per lb.

Potatoes.—The market for potatoes was on the firm side, owing possibly to the opening up of an export demand from Cuba. There was practically no change, however, merchants still reporting carloads changing hands at 40c. per 90 lbs., track, Montreal, and smaller lots bringing fully 10c. more.

Eggs.—Straight-gathered eggs were said to be available in the country at 17½c. to 18c. per dozen, and here at 19c. or 19½c. to 20c. per dozen. Selected stock all depends upon how closely the selection is made, but prices may be ranged from 22c. to 24c. per dozen.

Butter.—Prices on country boards showed very little alteration as compared with the previous week. Some merchants claimed they could get 24c., wholesale, here, for choicest makes; the figure mentioned would seem to be about right, ranging down to 23½c. for fine quality. Undergrades are 23c. Monday's quotations, however, were down to 23c. to 23½c.

Cheese.—The market has shown a slight decline throughout the country boards. Dealers quoting 11c. for Ontarios, 10½c. for Townships, and 10½c. for Quebecs. Export demand light.

Grain.—For the most part, the wheat markets have been weak of late. Oats selling around the following prices: Canadian Western No. 2, 35c. to 35½c.; No. 3, a cent less; No. 2 Ontario white, 31c.; No. 3, one cent less, and No. 4 yet a cent less. No. 3 barley, 56½c., and No. 1, 55c., feed barley, 54c.

Flour.—During last week the market for flour declined 20c. per barrel, making Manitoba first patents \$5.40, and seconds \$4.90, and strong bakers' \$4.70. Ontario patents, \$5.25 to \$5.35, and straight rollers, \$4.80 to \$5 per barrel.

Feed.—Market for bran showing weakness, and Manitobas may now be had at \$18 per ton, in bags, shorts being \$21. Ontario bran, \$19 to \$19.50, middlings, \$22; pure grain moulde, \$32.50 to \$33, and mixed moulde, \$25 to \$28. Cottonseed meal, \$35 to \$40.

Hay.—Market steady, at \$15 to \$15.50 track, Montreal, for No. 1 hay; \$14 to \$14.50 for No. 2 extra; \$12.50 to \$13 for No. 2; \$11.50 to \$12 for clover mixed, and \$10.50 to \$11.50 for clover.

Hides.—Market steady, lamb skins being up to 20c. each. Uninspected hides

are 10c. per lb., all round, and Nos. 3, 2 and 1 hides are 11c., 12c. and 13c. per lb., respectively. Calf skins, 14c. and 16c., respectively, for Nos. 2 and 1. Horse hides, \$1.75 and \$2.50 each, for Nos. 2 and 1, respectively. Rough tallow, 1½c. to 5c. per lb., and rendered, 5c. to 6c. per lb.

Cheese Markets.

Madoc, Ont., 10 11-16c. Woodstock, Ont., 10½c. bid. Peterboro, Ont., 10 9-16c. and 10½. Alexandria, Ont., 10½c. Belleville, Ont., 10½c., 10 13-16c. and 10½c. Brockville, Ont., 10 9-16c. bid. Kingston, Ont., 10½c. and 10½c. Tweed, Ont., 10 9-16c. Mtd. Winchester, Ont., 10½c. Ottawa, Ont., 10 9-16c. Perth, Ont., 10½c. Picton, Ont., 10 9-16c. Napanee, Ont., 10½c. Iroquois, Ont., 10½c. Cowansville, Que., 10½c.; butter, 22½c. and 22½c. St. Hyacinthe, Que., 10½c.; butter, 22½c. Chicago, Ill., daisies, 14½c. to 15c.; twins, 14½c. to 14¾c.; young Americans, 15½c. to 16c.; longhorns, 14½c. to 15c.; butter, creameries, 25c. to 27½c.; dairies, 23c. to 26c. London, Ont., 10½c.

Chicago.

Cattle.—Steers, \$6.25 to \$8.60; cows, \$4.50 to \$6.50; heifers, \$4.25 to \$6.25; bulls, \$4.50 to \$4.90; calves, \$3 to \$7.50; stockers and feeders, \$4.75 to \$6.50. Hogs.—Heavy, \$9.30 to \$9.85; butchers, \$9.35 to \$9.40; light mixed, \$9.30 to \$9.85; choice light, \$9.35 to \$9.40; packing, \$9.25 to \$9.80; pigs, \$9 to \$9.20; bulk of sales, \$9.30 to \$9.85. Sheep and Lambs.—Sheep, \$4.25 to \$5.40; yearlings, \$6 to \$6.75; lambs, \$7 to \$8.45; spring lambs, \$3.50 to \$9.10.

Buffalo.

Cattle.—Prime steers, \$8 to \$8.25. Veals—\$1 to \$9.50. Hogs.—Heavy and mixed, \$9.65 to \$9.70; Yorkers, \$9.70 to \$9.80; pigs, \$9.75 to \$9.80; roughs, \$8.50 to \$8.75; stags, \$7.25 to \$8; dairies, \$9.50 to \$9.80. Sheep and Lambs.—Lambs, \$7 to \$8.50; a few, \$8.60.

British Cattle Markets.

London and Liverpool cables quote live cattle (American) steady, at 14½c. to 15½c., dressed weight; refrigerator beef, steady, at 11c. to 11½c. per pound.

TRADE TOPIC.

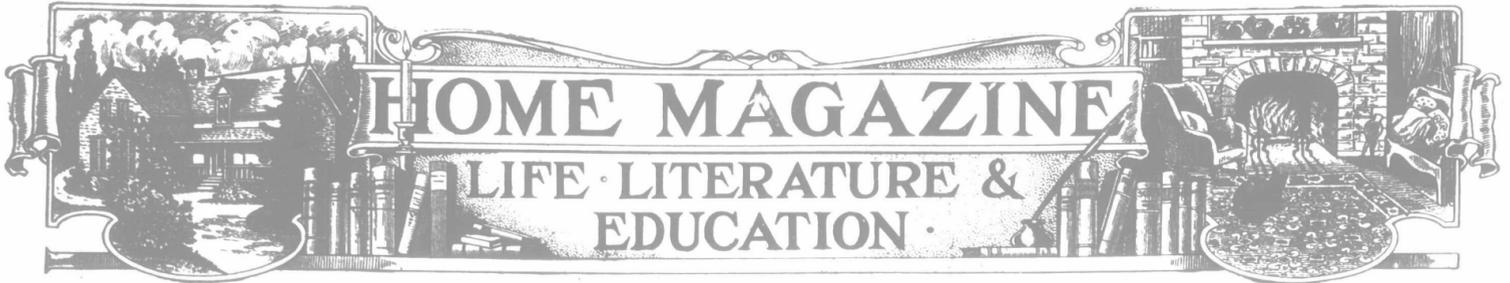
The attention of persons desirous of securing a good farm near Toronto, is called to the advertisement in this issue by Messrs. Philp & Beaton, agents for the sale of the fine 225-acre farm owned by John Isaac, the well-known breeder of Shorthorn cattle, situated 1½ miles from Markham village, G. T. R. This is a strictly first-class farm, and has been kept in good heart by the feeding of cattle and other stock for twenty years or more. The buildings are also first-class, and the location is a very desirable one.

GOSSIP.

The average price for the 46 head of Shorthorn cattle in the auction sale on May 25th, from the herd of J. B. Haggin, at Elmendorf Farm, Lexington, Ky., was \$338, the white bull, Lord Albin, topping the sale at \$1,000.

THE THOUGHTS OF YOUTH.

A small boy was hoeing corn in a sterile field by the roadside, when a passer-by stopped and said: "Pears to me your corn is rather small." "Certainly," said the boy. "It's dwarf corn." "But it looks yellor." "Certainly, we planted the yellor kind." "But it looks as if you wouldn't get more than half a crop." "Of course not, we planted it on halves."



Men of To-day.



Hon. Mackenzie King. The Minister of Labor.

Hon. Mackenzie King, the Canadian Minister of Labor, was one of the speakers at the sixteenth annual Lake Mohouk Conference on International Arbitration, held a short time ago, and received great applause when he suggested that the centenary of peace between Canada and the United States, that takes place in 1914, should be celebrated by the erection of a great bridge or monument at Niagara Falls. The Rush-Bagot treaty of 1817, he pointed out, in making it unnecessary to fortify the boundary line of over 3,000 miles between Canada and the United States, has been an example to all the world of the priceless advantages of an agreement for disarmament. During the conference, an official announcement from Secretary Knox was read, stating that the great Judicial Arbitration Court is now an accomplished fact, and is likely to be in actual existence, if not in session, within two years. It is said that England, Germany, France, Russia, Austria, Hungary and Italy have already accepted the proposal to enter the court.

George E. Hoxie, of Westerly, R. I., is one of the many who believe that it is to a farmer's advantage to encourage birds to come about his place, but he supplements believing by doing. He has on his homestead over twenty bird-houses, all occupied, and by encouragement he has also induced a great number of others to nest in his trees. As a result, he believes that his annual income has been appreciably augmented, especially the fruit crops, which have been largely protected from insect pests by the birds.

For some time there has been a growing feeling in Canada that more attention should be paid to industrial education in the Dominion, and it now appears that definite steps have been taken. At a banquet in Berlin last week, it was announced by Hon. Mackenzie King that a Royal Commission has been formed to investigate the needs in this direction, and with power to study the subject in all the provinces. Prof.

Jas. W. Robertson, formerly of Ste. Anne de Bellevue Macdonald College, is one of the Commissioners, and may be trusted to look well to those phases of the subject bearing upon agricultural progress.

"Fifteen thousand foreign girls and 45,000 native-born are victims every year of the white-slave traffic." This statement, made some months ago by Hon. E. W. Sims, forms the opening announcement of the annual pamphlet, "Canada's War on the White Slave Trade," issued by Rev. J. G. Shearer, Secretary of the Moral and Social Reform Council of Canada.

The numbers involved, covering Canada and the United States only, are sufficiently startling, and although but little is generally known of this nefarious traffic in the quiet rural districts of our Dominion, the fact that country girls have been found among the "entrapped," should render the question of how to stamp out the evil a live one in the country as well as in the town. Indeed, the fact that within the past few weeks, several men and women have been arrested in different parts of Canada for "procuring," proves, even to the most skeptical, that the menace is at our very doors, and affords some revelation of the risk to which the most innocent girls, who find it necessary to take situations in cities, and who have not been forewarned and protected, may be exposed.

It should be superfluous to suggest that one way by which the country can best lend its help in the matter is by warning its daughters, and yet such suggestion is actually necessary, for in many places the parents are themselves ignorant of the horrible machinations of the "system," and how can they warn in regard to that of which they know nothing?

The usual plan of the "promoters" of the traffic is to advertise for help. Nurses, stenographers, seamstresses, domestic helpers—all are wanted—easy work—and good pay. With all confidence, the girls apply, and usually the parents are well pleased. Means, perhaps, are lacking in the home, and there are many mouths to feed.

Still trustful, the girl makes her way to the city, probably alone. A representative of the "firm," perhaps a man, perhaps a woman, meets her, and all seems well. At the next step she is within a house of shame. Locked doors, barred windows, withheld street garments, prevent escape, while drugs and brutality do their debasing, enslaving, crushing work. Afterwards, the girl, ashamed to tell of her true condition, withholds the truth, or is compelled to write home that she is "doing well." "Five years, on the average," ends it. "Five drinks, drugs and disease do rapidly their deadly work."

Girls have been coaxed by the same or kindred methods to the Continent, to Alaska, to most of the larger cities of the United States. Nor has Canada kept her skirts clear. Consignments, literally consignments, of girls have been sent for the same purpose to the mining camps of New Ontario, to the Yukon, and to every city of the Dominion which does not vigorously suppress prostitution, or which tolerates, or "red-light" areas, as tolerated by simply "blowing the whistle." The Steamer Societies, for example, Halifax, Montreal, Winnipeg, and a number of the cities of the Dominion.

Increasingly, of late years, bands of good men and women have set themselves to outwit the plotters. At many depots, a woman wearing a badge, to identify her as a member of a Christian society, has been stationed to keep watch for young girls who seem "lost," or are not met by friends. In some places, persistent raids on dens of iniquity are made, and in the United States laws have been framed providing that any alien women found in such environment shall be deported to the country from which they have come, as "undesirables." It is enlightening, if distressing, to learn that of late, of 100 girls in disreputable houses in Boston, about one-third came from Canada, while of girls deported from the segregated area of Pittsburg, nearly a score were Canadians. These are but two samples, taken at random.

Those who wish to inquire further into the subject, may refer to Dr. Shearer's pamphlet, or write to him, to the headquarters of the Moral and Social Reform Council of Canada, Confederation Life Building, Toronto. But from even this brief reference to his booklet, does it not appear clear enough that parents have a duty to perform towards those of their children who would take situations in the city? A little warning, a little searching inquiry, the safe guardianship of parent or relative, until the situation is known to be genuine—are not these but reasonable precautions? Trustfulness is sometimes a desirable virtue, but the strange world cannot be trusted. In this, as in many other things, it must be proved.

The Windrow.

The Countess of Warwick is undertaking an attempt to co-ordinate the Social Democratic Party, the Fabian Society, and the Independent Labor Party into one English Socialist body.

In 1907 the City of Portland, Oregon, undertook to set out 250,000 rose bushes within three years. The task has been fully accomplished, and a great rose festival will be held during the week of June 6-11.

Last month, two Chinese, who were trying to negotiate with the Standard Oil Company for the sale of some land outside of a city in Hu-nan, were beaten to death by a mob. Evidently, China is in active sympathy with the prosecution of the Big Game.

Like his father, King George is shorter than his wife. He is a tireless walker, and fond of the woods and country life, as well as of the sea.

The exact spot upon the heavens on which Halley's comet should appear was foretold by magnificent calculation by two Greenwich astronomers, Cowell and Cromwell, upon certain plates exposed to the light of the sky, the image of which, the first to announce the coming of the comet, Dr. Wolf, of Heidelberg, saw in 1835.

Prof. McFadyen, of King's College, has accepted an appointment as United Free Church minister at Glasgow.

A prize of \$10,000 was offered for an airship, designed to fly from St. Louis, and on the way to Seattle, a flight from New York to London.

Hon. Duncan McLeod, Minister of Agriculture, has been appointed Alberta Minister of Education.

Our English Letter.

SOMETHING ABOUT THE OLDEST TOWN IN ENGLAND.

When I was leaving Canada, a friend said to me, "Surely, when you find yourself in Devonshire, you will not come away again without visiting Totnes, one of the most ancient and interesting spots in all England?" In addition to this advice, she kindly added a carefully-prepared little programme, which, alas, I could but follow in part, as my time was very limited. It was too provoking to be obliged to allot only a few hours to a place which would have required many days to have explored thoroughly, but, all the same, it is astonishing how much can be accomplished when one decides to make the best of one's limitations, especially when the sun shines brightly, as if to encourage one's efforts, and when every step one takes is pregnant with the promise of even better things in store. I had started from Teignmouth by an early train, and had revelled in the sight of the wildflowers which had garlanded the banks through which we had passed only too quickly. Primroses in profusion; violets peeping out between yellow daffodils as a carpet of gold, and graceful ferns keeping them company. I could not help wondering whether or no the grim warriors of those early days, when Judhel de Totnaiss first received his grant of the Borough of Totnes from William the Conqueror, had eyes for the beauties of Nature, or whether they took no heed of them, living, as they must have lived, under the unwritten but fully recognized law of "What we have we hold," and it must have taken all their time to do that.

THE ANTIQUITY OF TOTNES.

There is no question as to the right of Totnes to the title of the oldest town in England. Many places claim that they were borough towns when larger localities, which have since grown into cities, were mere bits of "fuzzy down," but with Totnes this is no empty boast, for its record stands on the pages of Domesday Book, and on other archives, and when, some years ago, the Lord Mayor of London gave a banquet to all the mayors of towns (not cities) in England, to the mayor of Totnes was accorded precedence as representing the oldest town of all.

Its previous history is such a mixture of truth and fable that it is lost in the mists of antiquity, but tradition has it that Brutus of Troy landed at Totnes, and colonized it after his own rough fashion, a large Stone known as the Brutus stone, standing in a prominent position today, to commemorate the fact, if fact it be. The local belief in the story is testified to by the still existing custom of its being the duty of the mayor, on the ascension of a new sovereign, to make the public proclamation that great national event, and to plant the Brutus Stone in the Fore Square.

Totnes was a walled town, its walls, many indications, but only four of its original gates remain, and as they were originally built by the hand of time had fallen upon them, but by the efforts of the architect, the east gate has been restored. The east gate was a double-arched portal, one for the entrance, and the other closed with gates, and a

smaller one, or "needle's eye," allotted for foot passengers only. In the room over this gateway are many interesting relics, but I did not manage to see them. The north gate has escaped modernization, but in making the necessary repairs, much of the luxuriant foliage, which had been one of its chief beauties, had to be torn down. Nature, however, is already slowly but surely weaving a new garment of greenery with which to cover the old rents, and to give back to the fine old gateway much of its original aspect.

Amongst the old-time customs which survive in Totnes is the ringing of the Curfew (or cover-fire) bell at 8 p.m. After it has been rung on the treble bell, the day of the month is tolled on the sixth bell. The staple industries of the borough in the days of Queen Elizabeth were cloth, leather, yarn and shoe manufactures, and it did an important trade with France, its Merchant Company then safeguarding the interests of the traders. "The hose of fine Totnes" was held in high repute; but the war between Charles and his Parliament caused a decline in the woollen trade, which has now wholly disappeared. To-day, its chief exports are its cider, made from the fruit of the surrounding orchards, its choice sweetmeats, and the timber from the woods of the district, whilst its South Devon pedigree cattle have a high reputation amongst the agriculturists of the home land, as well as finding a market to some considerable extent in South Africa, and there is no sweeter cream or butter, or finer poultry, than can be bought at the Totnes market.

Another quaint old custom survives. It is that of exhibiting a white glove on the end of a staff at the Rotherfold and on the Plains, to indicate, on the day before the holding of each of the two yearly fairs, that there shall be "free and open-handed dealing." This is a survival of the past, when, except on such days, trade was confined to members of the guild-merchant, and at other times people had to pay fines for opening shops or selling goods. History, and not tradition, asserts that there was a mint in Totnes as far back as the reign of Ethelred, in 978. Coins were also minted in the town in the days of William Rufus, many specimens of both being still in existence.

THE GUILDHALL.

Perhaps the most interesting of the places I was able to visit was the quaint old guildhall, one of the pictures of which I hope our editor will be able to make room for. My kindly vicarone was a rosy-cheeked, typical old Devonshire woman, wife of the sexton of the grand old church of St. Mary, in the precincts of which, on what had formerly been the site of the old Priory, the present guildhall had been built, several centuries ago. After showing me the hall of justice, the committee rooms; the blocked-up old doorway, which had once led to some underground cells below the council chamber; the pictures; an ancient chest, and the curious arm-

chair used by the town clerk, she pointed out some old stocks, the one-time terror of the brawler and the drunkard of the long ago, and an elm trunk, with a hole bored through the center, which once had served the purpose of a water-pipe, proving the truth of the well-worn adage that, "Necessity is the mother of invention."

THE GUILD ROLL.

The old guild roll, with names of members, is dated 1260, one name on it being struck out, because the bearer of it was hanged, the reason why not being stated.

In these days of puzzlement over

Hope's Quiet Hour.

Fifteenth Annual Report of the Toronto Children's Fresh-air Mission.

"I count this thing to be grandly true, That a noble deed is a step towards God, Lifting the soul from the common sod, To a purer air and a broader view."

Superintendent's Report, 1909. Each year tells a wonderful story of

dren into their homes for the Master's sake. It meant real sacrifice in many cases; one lady asked for a mother and her seven children; a father, on hearing the appeal for homes, volunteered to take six boys, but returned in half an hour to say that perhaps he had better consult his wife. They certainly gave their two boys a good time. Another family, blessed with "only thirteen children" of their own, asked for two boys. A young lady with an aged mother and an invalid sister took two little girls.

It would do one's heart good to hear the children themselves tell of the "swell times we had on our farm, and they gave us all we could eat." And then to see them come tumbling off the train on their arrival home, laden with parcels containing substantial clothing, homemade bread, vegetables, chickens, pigeons, etc.; in fact, everything that would make a child happy. Best of all, to hear the children tell of being taught out of God's Word, and sometimes of a morning and evening prayers learned.

Much credit is due the railways for their continued interest; it is doubtful if this Mission would have been started if it had not been for their generous assistance. The Grand Trunk, Canadian Pacific and Canadian Northern, have kindly offered to do their part for 1910, and to show what a good example does, the Michigan Central has agreed to grant us the same rates.

Our thanks are also due Mr. Thos. Thornton, who kindly printed the Reports, also the Toronto Engraving Co., for plates for the same.

Requests for money are never made for this work; a brief report is published each year, and we are solely dependent upon those into whose hearts God puts the desire to give. We have never gone into debt, trusting our Heavenly Father for all needs.

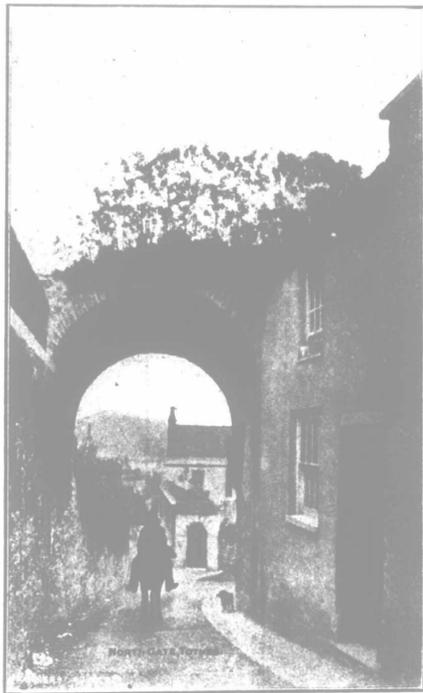
This past year shows the highest record, 702 children being sent out for at least two weeks' holidays; the previous record being 532, in 1908.

The average cost per child for a two weeks' holiday in the country is one dollar.

As the Nurses See It.

What a wealth or dearth of pleasure the word "Summer" may mean. To many it is the season when God's green earth may be enjoyed for weeks or months. Many children are at this time planning wonderful experiments to be realized when the summer holidays bring the usual trip to the country or lakeside, and preparations are perhaps already in progress. But what a contrast is presented by the word to hundreds of little children who have never seen the green fields and cool rivers that lie as yet in the recesses of their imagination. To them, summer means such long, hot days, and dirt and dust.

A few minutes' walk from the Mission would take us to a street where, in a one-roomed rear, about eight feet square, a mother and four children are living. A bed, stove and small table compose the furnishings, with the addition of a box upon which Jackie has been sleeping. The father is in a Consumptive Sanatorium, and upon the mother has fallen the problem of providing for her four little ones. Their playground is a



North Gate, Totnes.

Budget propositions and tariff reforms, it was somewhat startling to learn that, according to documentary evidence, an agreement was entered into in the year 1236 between the burgesses of Totnes and the Abbot and Convent of Buckfast, whereby the Abbot and Monks were received into the Guild, "to buy, but not to sell," and when the then Lord of the Manor exempted the Abbot and Convent of Torre from the payment of tolls, the Guild exacted from them an annual acknowledgment of two shillings for the concession. Truly, "other times, other manners." H. A. B.

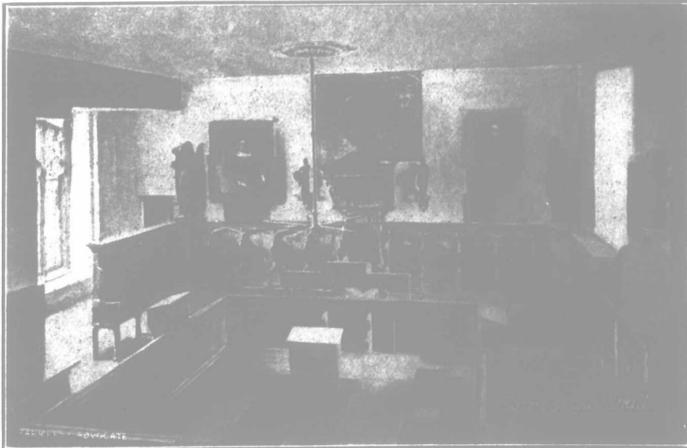
(To be continued.)

the work amongst our needy children; no one would have imagined "in the early days of small things" that it could have grown to such proportions.

We were told then that homes in the country could not be found where the children would be taken free of charge; but God implanted in the hearts of a few that there were many of His children living on good farms, who would be willing to take them if they were only made acquainted with the needs. From seven homes offered in the Lindsay district the first year, the number has now grown to about 350. . . . We indeed are grateful to all who helped in the work, especially to those who received the chil-



Totnes Guildhall.



Totnes Guildhall.

narrow lane, deep mud in wet weather, hot and dusty in dry weather, or a yard where a few old wagons used by ragmen are kept, not a single tree or blade of grass to relieve the glare of the hot sun.

In a little narrow street near-by, another family may be found living in a tiny hovel, the kitchen having sunk until everything is at an angle, reminding one of a sea voyage. Here we find several small children. Two of the boys earn a little by selling papers, but the income is very scanty. When school or work is over, they may join the smaller ones in the alley. On one side is the wall of their little house, and on the other ashes and garbage, the only shrubbery to be found in the ward. But not only in the ward are the candidates for fresh air found. South of Queen street, a case recently visited, brought to light a family living in a deplorable state, no—not living, for such existence can scarcely be called "living." A father and two young boys occupying two rooms, one as a sleeping apartment, where a few old coats composed the only bed they had. In the outer room a little stove was found, one chair, and half the remains of another, a basket of garbage, and a box, the scanty meals being served on a little table made of rough boards. The mother is dead, and the two little girls are being looked after by neighbors. The father has been unable to obtain steady work, and has only been able to earn sufficient to keep his boys from starving. One could not help but think how that pale-faced little lad wearing an old pair of girl's boots would enjoy a few blissful hours at some swimming hole. A few blocks south of this, just off King street, a mother was lying ill; from her room she superintended the family affairs. A little girl of nine years was doing the washing and looking after the little brothers and sisters. As meal time approached she began to watch for the brother and sister coming home from work, who are scarcely more than children. Such is the life of many a child. Are these little ones not to share in the pleasures which are rightfully theirs?

One of the nurses, while walking through the ward carrying a bunch of flowers, met a little girl who looked longingly at the bright-colored beauties. How those big eyes sparkled when she saw that she too was really to share such treasures. A long drawn, "Oh my!" and then the happy, dirty little face was lost to sight in the flowers that were "really truly" hers. Think what rapture it would be for such a child to revel in the beauty of a daisy field.

The more one sees of the daily life of many of Toronto's children, does one realize how much must be done to teach our boys and girls to live healthy, moral lives, and surely a trip to the country would help very materially.

What can I do to-day?
Not gold, or ease, or power, or love, to gain
Or pleasures gay,
But to impart
Joy to some stricken heart,
Bring to the fold again
Some lamb astray;
To brighten life for someone
Now and here,
This let me do to-day.

What We Ask of Our Friends Who Take the Boys and Girls.

- To take them for two weeks' holiday.
- To be strict, and not withhold correction when it is necessary.
- To notify children's parents of their home-coming.
- To kindly write Secretary as to children's conduct (good or otherwise).
- We desire to send them all out in July, commencing Tuesday, the 5th.
- Friends to meet the children at the railway station, and see them safely on the train on their homeward journey.
- We send the children two by two, so as to prevent homesickness.
- We pay their railway fare both ways.
- We ask only for Christian homes, where the children will be received for the Master's sake.
- We try and send our best behaved and most deserving boys and girls.
- Kindly say whether boys or girls are preferred.
- We cannot send their names before going out.

If the same children are desired again, kindly let the Secretary know.

In your correspondence, please state whether Miss, Mrs. or Mr.
State post-office address and nearest railway station.

We wish to have by June 20th, the names of friends who desire to take our children.

Please join us in earnest prayer that, above all, our boys and girls may learn to know and trust Jesus as their personal Saviour.

Chas. D. Gordon, Superintendent; Miss Florence Roberts, Secretary, 21 Scarth Road, Toronto; Martin Love, Treasurer, 186 Spadina Road, Toronto.

The Leaders of the Fresh-air Mission are very grateful to readers of "The Farmer's Advocate" for homes offered and money sent in past years. Will you do your part again—and promptly? If each of you sent a contribution in money, or offered to take two children for a fortnight—if not too far from Toronto—what a lot of happy little people there would be! Our Lord still says: "Whoso shall receive one such little child in My Name receiveth Me."—S. Matt. xviii: 5.

The Ingle Nook

[Rules for correspondents 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 enclosing a letter to be forwarded to anyone, place it in stamped envelope ready to be sent on. (4) Allow one month, in this department, for answers to questions to appear.]

Initiailling Linen.

Have you ever noticed the daintiness, the little air of refinement and personality that initiailling gives to linen and lingerie? Embroider a pair of plain



linen towels with prettily-designed lettering, and immediately they become, not merely towels, but the personal property of a dainty woman. So with tablecloths, napkins, handkerchiefs, etc.

The accompanying designs may be easily drawn by anyone who will take the time, and made smaller or larger, as the size of the article to be embroidered demands. An authority says that initiailling is best done working without a hoop, although the padding-stitch may be done with the linen drawn over a hoop. If one has not a hoop, all that is necessary is to hold the linen over two fingers, slightly parted.

The design should be first padded by strands of flax laid on carefully and evenly, then worked over and over in fine satin-stitch. The work is quickly and easily done, and the results are worth while.

At one time, the initial was invariably embroidered in the corner of towels and napkins; now it is more usually placed in the center of the end of the towel (above the hem, of course), and in the center of the end of the napkin, which is folded to bring it into the middle of the square as laid on the table. Personal taste must, however, largely govern in regard to the matter of position, as fashions are continually changing.

Incidentally, it may be mentioned that the girl who is preparing her trousseau, invariably embroiders the initial of her maiden name, never that of the name she is to have when married. In these days of moon-broken engagements—not to be precipitation

A Welcome Letter from Jack's Wife.

Dear Ingle Nook Friends,—If you knew how eagerly I looked forward to "The Farmer's Advocate" night, you would know that I mean it when I call you "friends." In this far-off land, the old names and home papers are very welcome. I am more than glad that the little paper I wrote on "Care of Babies" has been so helpful. It more than repays me for several years of more or less serious study along that line—and here I will tell you what I have never before told "Advocate" friends: Many years ago a little son came to us, and while I do not feel it was because of my ignorance we lost him, yet I do feel that had I known even a little bit of the needs of a child, I could have made his short life less painful. After his death, I determined that if I ever again became a mother I would know something, at least, of the care of a child, and so I

cans, and the majority of them cannot speak English at all. Some of them understand a little, but cannot speak it, while many do not even "savvy." For once in my life I appreciate the old "Latin roots" I worried through at the age of ten.

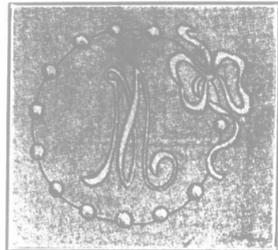
I suppose you wonder if it is hot out here. Well, the thermometer has been from 100° to 110° several days in the last two weeks, but it is like Manitoba cold, "you don't feel it." We have had two wet days since January first. Strangers are always thinking how much a rain would cool the air, but rain is the one undesirable thing here, as it only intensifies the heat. The strawberry season is now over (written May 24), and apricots and cherries are in the market. The first crop of hay is taken care of, and the second is nearly ready to cut. We have had roses in bloom since March, and oleanders are now in their glory.

Some day I hope to be able to write you more of this country, but just now you will just forgive me—but, I hope, not forget me. A dios.

JACK'S WIFE,
Palo Verde, Arizona.

Another Old Friend.

Dear Dame Durden,—Just a year has passed since I was in your midst, and this morning I feel that it would be a great pleasure to shake hands with you all again. I have been a silent, though none the less ardent, reader of our dear Nook all this time; now I come to tell the old, old story of how much comfort and benefit I derive from reading your letters, and from our editor's talks. I cannot see how we can help living better lives every day. Let us be patient, prayerful, earnest and true, forgive those who need to be forgiven, and cover their failings with the mantle of charity and love. We all make mistakes as we journey through life, therefore, I think we should not be uncharitable in regard to the errors of others. This world would be much happier were we all to be a little more generous with praise and less so with faultfinding. There is plenty



of flattery—that is not what is wanted. A word of just appreciation would cheer the heart and strengthen the hands of many a discouraged worker. Let us devote our time to making home happy and cheerful. The great lever that moves the heart is love; it is the basis of all excellent thought. Happy is the home governed by the spirit of love, each member striving to avoid giving offence and studiously considerate of the others in every way. Your heart will grow with love stronger as time rolls on.

Many of our young people launch out too early upon the matrimonial sea—that is one great reason for so many unhappy marriages. Such an alliance is not to be entered into thoughtlessly, as one goes to a dance or theater, nor to be dissolved with as little concern. Perhaps you will think I am preaching what I did not practice when I tell you I married at the age of twenty-one, and that it is now thirty years since "Will" and I set our feet in the same path. Don't think that all has been smooth travelling—in life is without its trials, yet I think few would have less complaint to make. I try to be all he needs, and he thinks a woman has all she can do in the house. I should like to take each and every troubled sister of the Nook by the hand and speak a word of cheer, but as this is impossible, I will trust that the future holds abundant prosperity and multiplied happiness for all, and that the mantle of charity may cover all shortcomings.

Put a quart of yeast in a pint of water

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with the chill off. At 1 o'clock in the afternoon, when the yeast dissolves, stir in two tablespoons of flour and leave till 7 o'clock, then boil three medium-sized potatoes and pound in water, then strain and have a gallon of potato-water at a temperature of 68 degrees. Make a thick sponge, adding yeast, and leave overnight. In morning, add two even tablespoons of salt, and two heaping tablespoons of sugar, and mix down hard with flour; then mix down twice, mixing when it rises up well, and the third time it rises put on the pans—two-pound loaves are best. Bake in an oven heated with hardwood, having oven hot enough that you can just count to twenty when you hold your hand in.

Can anyone tell me how to care for clematis vine? I have had a failure with mine.

With love and good cheer to all.

MAYFLOWER.

Glengarry Co., Ont.

Bailey says to give the clematis a light, loamy soil, with a little lime mixed in. It should be well drained, and should be kept enriched by annual applications of manure or rich leaf-mould. Mulching with half-rotted manure on the approach of winter is good. Clematis Jackmani should be vigorously cut back in November. Clematis paniculata, and other hardy varieties, require very little attention. The more tender kinds are sometimes attacked by a nematode worm in the roots. So far, no cure has been found.

Many thanks for the violets. They were still damp and sweet when they reached me.

Plants—Recipes.

Dear Dame Durden,—I have been a silent reader of your interesting Nook for a long time, and am coming for a little help.

I am very fond of flowers, but have not had very good luck with some kinds. Would you please tell me whether spring or fall is the proper time to start spotted calla bulbs? I have tried planting them both seasons, but they just grow up and then die off. Have any of the Nookers ever tried growing tulips from the seed? When should they be planted? Do they need very rich soil?

I would like a good recipe for salad dressing.

I will send a recipe which I think is good:

Graham Bread.—Add half a cupful of granulated sugar to one beaten egg. Beat and add one cupful of buttermilk or sour milk and two tablespoonfuls of sour cream; add one and a half cups of Graham flour, mixed with one cup white flour. Beat in half a teaspoon of soda, dissolved in a teaspoon of hot water. Bake slowly.

BROWN EYES.

Middlesex Co., Ont.

The time for starting callas must depend on the season when one wishes them to bloom. When grown for winter bloom, the roots should be rested in summer and started in fall, the best treatment, Bailey considers, for callas grown as house plants. An aunt of mine had great success with these plants, and her method was as follows: During fall and winter the plants were grown in a light north or east window (double-sashed), in good, black, mucky soil, with plenty of root-room, and plenty of drainage material at the bottom, as, though callas like plenty of moisture, they do not like standing water "about their feet." The temperature was never permitted to go below 55 degrees, and a little warm water—just enough to run through a little into the saucer—was given every day. From time to time, after the growth was established, liquid fertilizer was added, and the foliage was frequently showered with clear, tepid water. When the blooming season was over, the water was withheld somewhat, and in June the pots were taken out and turned on their sides in some corner of the garden. Here they were left, without any attention whatever, until September, when they were repotted, brought into the house, and treated as before.

Just here, Eben Rexford says that the best soil for callas is a compost made up of muck, well rotted manure, and sand, with a handful of ash immediately about the bulb.

I have never heard of saving starting slips from seed, nor have I had any in-

formation about it in any of the gardening books. The usual method of propagation is by using the side offsets, or by producing new bulbs by a peculiar method of cutting the old bulbs. Perhaps some reader can answer.

Tulips are not very particular as to soil, but do best either in a light sandy soil, or in soil which has been made rich in a preceding year. The latter produces the finest flowers, the former the best bulbs.

Salad Dressing—2 eggs, butter size of an egg, 1 level tablespoon mustard mixed in a little milk, 2 tablespoons sugar, 1 cup vinegar, pepper and salt to taste. Mix beaten eggs, sugar, mustard and salt; then add vinegar and heat in a double boiler, stirring constantly, the one way, until smooth and creamy. When cold, whip in half cup cream.

Re Curtains and Rugs.

Just a word of advice in connection with the buying of rugs may, perhaps, be permissible. Think of the ultimate decorative scheme before you make your purchase. Remember that every room should have a color key, which should not be departed from. This does not mean, of course, that only one color should be used, but that all the colors in floor coverings, window draperies, furniture and woodwork should harmonize. The general rule is to have the strongest color on the floor, and the lightest on the ceiling. If, as in the case of many summer houses, the walls are not plastered, only strong colors should be used in the floor coverings, and the dainty shades should be avoided. Reds, tans and yellows will introduce the needed note of color.

When it comes to window draperies, this same thought of color and a color scheme should be borne in mind. Moreover, the materials from which draperies may be made are almost endless in variety, and the prices in many cases are low enough so that they need not frighten the owner of even the most modest summer home. It is not necessary to buy ready-made curtains. In fact, it is not the best plan, for one may go to the department stores and find domestic cotton prints, dimities, cretonnes, unbleached cotton, cheesecloth, crash, muslins, madras, scrims, nets, and other materials which may be used for making effective and beautiful curtains. Unbleached cotton and cheesecloth can be purchased for as low as six cents a yard. The most expensive material included in this list would hardly cost over sixty-five cents a yard. In some of the smaller towns it might be difficult to get some of the materials named, but there are few stores which do not carry curtain muslin in figures and stripes, which ought not to cost more than ten cents a yard.

Many of these goods are figured in bright colors, and in designs which are not large enough to be offensive. On the other hand, the unbleached cotton, cheesecloth, scrim, and crash, may be stencilled so as to produce beautiful effects, if careful attention is paid to the color scheme.

Ruffled muslin curtains are going out-of-date. Some of the best stores are not carrying them in stock at all this season, and it must be admitted that the simple unrufted curtain, hanging straight, is much more harmonious.

The curtains of the average summer home ought to be kept at the sides of the windows. In the case of many city houses, there are good reasons for using double curtains, or for hanging draperies in such a way that it is impossible to see into the house. Oftentimes privacy can be secured in no other way. In the case of the country home, on the contrary, it is desirable to have the windows free of all obstructions, as the matter of privacy usually need not be considered. It is best to use curtains which hang only to the bottom of the sill, unless the window is very wide and it is desired to increase the apparent height.

The curtains may be hung from brass rods, either inside or outside the casing. If inside, it is well to be sure that the measurements are made very carefully, for the rod must be of exactly the right length. It is advisable to use a yard-stick or a 3 ft. because tape-lines are often inaccurate. It is well, too, that the measurements should be made at the top of the window, just where the rod is to be attached, for there is often a

TO THE WOMEN OF CANADA



PANTRY TALKS

I am the Queen of the Flour Bin, the lady-in-chief of the Royal Pantry, the oracle of the Royal Household.

I want the attention of Big Folks and Little Folks, of Experienced housewives and Inexperienced—of Rich housewives and Poor—Young housewives and Old. For I have stories to tell.

Secrets—flour secrets—to unfold.

And these secrets have come by Experience—by actual knowledge of flour, actual study of different grades of flour.

If I can tell you the secret of making better Bread and Cakes and Pies and Pastry, that will be profitable to you.

And if I can tell you why one flour is more economical as well as more wholesome than another, that, too, will be profitable.

For I mean to go into the flour question deeply, giving Whys and Wherefores, Facts and Figures.

So if you follow my little stories from time to time, as they appear, you will learn lots of things about flour that nobody has told you before. These Pantry Talks of mine will be chiefly about

Royal Household Flour

so named because it was the flour selected for use in the Royal Household of Great Britain. It is the one flour in Canada which stands out head and shoulders above all the rest. It is made in Canada by the largest miller in the British Empire—The Ogilvie Flour Mills Co. Limited, and, because of its high quality and absolute uniformity, has given the greatest satisfaction both for Bread and for Pastry.



Superfluous Hair

ON THE LIP, CHIN, CHEEKS, NECK, EARS, BETWEEN THE BROWS; ALSO Moles, Warts, Red Veins etc.,



ALWAYS PERMANENTLY REMOVED by our reliable method of Electrolysis, which is antiseptic and practically painless. We assure satisfaction in each case. Ladies afflicted are asked to bear in mind that there is positively no other permanent treatment for the removal of superfluous hair. Cutting, burning, pulling or the use of depilatories only make the trouble worse. We have had

OVER 18 YEARS' EXPERIENCE

in the treatment of the above and all other skin, scalp, hair and complexional troubles, including Psoriasis, Eczema, Pimples, Blisters, Blackheads, Freckles, Moth patches, Muddiness, Discolorations, Rashes, Wrinkles, Goutre, Red Nose, Ivy Poisoning, Dandruff, Falling Hair, Fading and Grey Hair, etc.

Consultation free at office or by mail. Describe your trouble fully when writing. All correspondence is strictly confidential.

Booklet "E" and sample of Toilet Cream mailed to any address.

HISCOTT DERMATOLOGICAL INSTITUTE
61 College St. Estab. 1892. TORONTO, ONT.

Please Mention this Paper.

The Monitor Rotary Lawn Clothes Dryer



No more soiled clothes from dirty lines or dragging on ground. No more weary the yard snow, carrying basket. The lines everyone is within easy reach. The "MONITOR" is easily handled, opens automatically when set up and closes by simply pulling the cord, is so light that any woman can set it up or take it down and put it away in two minutes and is strong enough to stand the hardest gales. The rotary motion makes the clothes dry quicker too. If your dealer does not handle it, write us. 60 Cummer-Dowse Limited, - Hamilton, Ont.

Cowan's Perfection Cocoa

Let the children drink all they want. Healthful, nutritious, delightful. Absolutely pure. That rich chocolate flavor. Very economical.

The Cowan Co. Limited, Toronto. 88

A suburban chemist had been advertising his patent insect powder far and wide. One day a man rushed into his shop and said excitedly: "Gimme another half-pound of your powder, quick, please." "Oh!" remarked the chemist as he proceeded to fill the order. "I'm glad you like the powder. Good, isn't it?" "Yes," replied the customer. "I have one cockroach very ill; if I give him another half-pound he'll die!"

WHAT NEGLECT DID FOR HIM

Jas. E. Brant Suffered Torments from Kidney Diseases.

Then He Used Dodd's Kidney Pills and Became a Well Man—His Experience a Lesson for You.

(Athabasca Landing, Alta., June 6.—(Special.)—That Kidney Disease, neglected in its earlier stages, leads to the most terrible suffering, if not death itself, and that the one sure cure for it in all stages is Dodd's Kidney Pills, is the experience of Mr. James E. Brant, a farmer residing near here.

Mr. Brant contracted Kidney Disease when a young man, from a strain, and, like hosts of others, neglected it, expecting it to go away itself.

But it kept gradually growing worse, till after thirty years of increasing suffering the climax came, and he found himself so crippled that at times he could not turn in bed, and for two weeks at a time it was impossible for him to rise from a chair without putting his hands on his knees.

He could not button his clothes. He was troubled with Lumbago, Gravel and Backache, and tried medicines for each and all of them without getting relief, till good luck turned him to Dodd's Kidney Pills.

Dodd's Kidney Pills started at the edge of his troubles and cured his Kidneys. With cured kidneys, his other troubles speedily disappeared, and today he is as well as he can be.

If you are troubled with Dodd's Kidney Pills, you will never have Lumbago, Rheumatism, Heart Disease, Dropsy or any other ailment.

material difference in the width at the top and the bottom of the sash.

Oftentimes a valance adds much to the effectiveness of simple curtains. A second rod may be used, in which case the valance should extend the full width of the windows; or the valance may be only as wide as the distance between the two curtains, hanging on the same rod.

Cretonnes are particularly in favor, and deservedly so, because of the fact that they do not fade easily, something which cannot be said of many other materials. When cretonnes are used in bedrooms, a harmonious result may be obtained by using the same material and design on the tops of the tables and dressers. Cretonne costs from twenty-five to sixty cents.

Scrim curtains are also in great demand, especially for small rooms, with dainty furniture. Scrim is soft in texture, and the color is a beautiful ecru. Such curtains, either stencilled or hemstitched, and with an attractive edging, are particularly artistic. They come plain, and with cross-bar patterns. Scrim costs from forty to fifty cents a yard. A new, attractive and inexpensive material is printed scrim.

Madras curtains are again in favor, and have much to recommend them, being durable, easy to wash, and coming in pleasing colors, which do not disappear in the laundry. If double curtains must be used, it is well to use madras for the over-curtains, the inner curtains being of scrim. A wide variety of colors is found in madras, including blue, red, green, light gold, rose, ecru, terra cotta; the prices range all the way from thirty-five cents a yard for thirty-six-inch material, up to one dollar a yard for 45-inch material.—Suburban Life.

Our Scrap Bag.

Have an ordinary garden-hose faucet placed on tub or washer, and drain the water through the hose to the flower-beds in the back yard. This will save much heavy lifting and carrying.

To Hemstitch by Machine—Take three thicknesses of new paper, and a needle large enough to penetrate without breaking, and stitch right through. After taking the material from the machine, open gently.

Add table salt to gasoline to prevent the "ring" when removing spots. Many a dry cleaner's bill can be saved by knowing this.

An Ointment for Sunburn—Mix a little fuller's-earth to a soft paste with elder-flower water or cream. Plaster it over the skin, leave on for fifteen minutes, then wash it off in two rinsings of hot soft water. Afterwards apply a little cold cream.

Cure for Ivy Poison.—3 grains hyposulphite soda to 1 ounce water. Apply as soon as possible.

To Keep a Print of Butter Cool.—Place it in a bowl and set in a pan of water with two tablespoons salt added. Invert a large flower-pot over all, and cover with a wet cloth, letting the ends of the cloth reach the water. A good idea when one has no ice.

If a cake is baking too quickly, set a small pan of water in the oven.

A dip in skim milk is said to be much better than starch for fine white waists, fine doilies, underwear, etc.

To Drive Away Ants.—It is said that a small cloth saturated with oil of sassafras and placed on pantry shelves, will drive away ants. A good plan is to place a large sponge, moistened and sprinkled with sugar, where the insects congregate. When a great number seem to be in it, drop it in boiling water, and repeat until ants are eradicated.

To Patch Wire Door and Window Screens.—Cut a square from wire cloth about three inches on each side larger than the hole. Pull out wires to make a fringe. Bend the fringe back, place over the hole.

Old white bedspreads, that are no longer fit to put on a bed, may be made into excellent bath towels.

One of the commonest causes of dyspepsia is lack of sufficient mastication. Chew food well, without taking any liquid in the mouth until the mouthful has been swallowed, and many stomach disorders will cease. In addition, breathe fresh air constantly, avoid worry and patient rushiness, and take gentle laxatives when necessary. Be careful in regard to diet, using nourishing, but not

rich foods. A small cup of hot beef tea taken an hour before dinner will be found an excellent stimulus to the gastric juices. . . . In old age, meals should be light and frequent. Free use of milk is recommended, and apple juice as a solvent for the lime salts which indurate the blood vessels. While strain and excitement should be avoided, mental work of an interesting nature will be found conducive to the health of both mind and body.

"The Farmer's Advocate" Fashions.



DESIGN BY MAY MANTON. 6600 Girl's Dress. Age 6 to 12 years.



DESIGN BY MAY MANTON. 6897 Child's Dress. Age 1, 2 and 4 years.

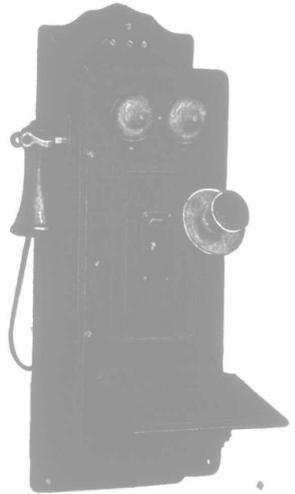
Please send for patterns, giving age of child. Price, 10c per pattern. Address: Fashion Dept., The Farmer's Advocate, Toronto, Ont.

TELEPHONE QUALITY.

It is the quality of a telephone you must look to. A dollar or two in the price is not here nor there on a telephone that you expect to use for many years. Suppose you do save a dollar or two in the first cost and get an inferior telephone, it may cost you anything from two dollars to ten dollars a year to keep the inferior telephone in working order.

You see, therefore, it is poor policy and expensive business to try and save a dollar or two on the first cost, and face the continual expense of maintenance of a poor telephone.

Quality is what you must be particular about. Make sure you are getting a high standard telephone, and let the price be a secondary consideration.



Our Special Study.

We made quality our special study when commencing to manufacture telephones. We took advantage of the best experience in the telephone art, and established a high standard, and equipped ourselves to maintain that standard. We will not be tempted to make a low-priced telephone, no matter how many cheap telephones may be on the market.

We are building up a permanent business, and believe that one of the essentials to our success is the quality of our telephones. The fact that our business has doubled this season is an indication that we are doing the right thing.

It Will Pay You.

If you are building a new line, or if you are extending your present lines, let us quote you on telephones. It will be a pleasure for us to discuss your wants, and it may save you many dollars and much inconvenience.

ALL WANTS SUPPLIED.

Besides making telephone equipment, we carry a large stock of construction materials of all kinds, and can give you prompt service. Get our prices.

If you propose to build a local telephone line, ask for our No. 2 Bulletin, which gives full instructions how to build. Also write for one of our books, "Canada and the Telephone," illustrated with thirty-two picture stories, showing the value of a telephone in the rural home. These will be sent free of charge.

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The Beaver Circle.

[All children in second part and second books, will write for the Junior Beavers' Department. Those in third and fourth books, also those who have left school, or are in High School, between the ages of 11 and 15, inclusive, will write for Senior Beavers'. Kindly state book at school, or age, if you have left school, in each letter sent to the Beaver Circle.]

Another Competition.

Gordon McNiven, Crumlin, Ont., suggests that we have a competition on flowers, and "Barkis is willin'." Last spring we had one on drawings of spring flowers; so now we will have something different. Write a composition on "Wild Flowers in Bloom in Your Vicinity," and illustrate by three drawings drawn from the plants themselves. I will give you up to July 20th to get this done. Remember, I do not want you to tell about early spring flowers, but about those that you find as you write, any time between now and July 20th. State time of finding flowers, kind of soil, surroundings, etc. This competition for Senior Beavers only.

Re Nature Study Clubs.

Dear Puck and Beavers,—I saw in a recent edition of "The Farmer's Advocate and Home Magazine," that an Ontario boy was asking Puck to assist him in forming a Natural History Club.

I agree with him in his proposal, all but the space he asked for in the paper each week. I suppose Puck would allow us three columns each week if required, and if not required it could be used for anything else; any Beaver who is writing about anything to give a clear description of it, and as briefly as possible.

I do not agree with Puck as to clubbing together in different localities and buying books on nature for themselves, because "The Farmer's Advocate" is not (but should be) a weekly visitor at every farmhouse, so the children would be too widespread for that.

Say that each home gives 25c., and have Puck buy the books and do the business for them. I think that the Beavers should give their opinion when a question is asked, and Puck to give his. I suppose there is enthusiasm enough in the children in two thousand homes. Surely a farmer making a whole stack of money out of his farm, growing alfalfa clover and keeping a great dairy herd, could afford to give a quarter of a dollar to the benefit of the knowledge of his children. That is, 2,000 homes, 25c. each, and I think that should start it, and then whatever it costs after that for to run it.

I think I have said enough about it at present, as I don't like to oppose Puck's opinion too strongly.

JOHN CUSICK (age 16).

Walton, Ont.

I think John misunderstood me. It is quite impossible for us to be sure of even three columns a week to devote to nature-study in Beaver Circle, and you know we would not like to have an unsatisfactory club, such as would be inevitable if space were not assured. By my plan, each little club would run itself, and all the children in each neighborhood would have the good of the nature-study books (which would be kept in the section), whether subscribers to "The Farmer's Advocate" or not. All I could promise to do would be to publish the names of good books on nature-study, with prices, and forward such, or have them forwarded to any club that wished me to do the buying. We might procure advertisements from firms that make a specialty of such literature, and then ordering could be done directly, and all business transacted directly between the clubs and the publishers.

Of course, I hope to have nature-study articles in Beaver Circle from time to time, but that would be a different thing, and require much less space than an organized magazine club, with contributions from thousands of members.

You see, Beavers, I should like to see you in this, but I realize, as perhaps you cannot, how much space would be required for so vast a scheme, and how much is actually at our disposal.

However, send us nature letters when you can, and we will do the best we can about finding space for them.

Perhaps someone would like to think out a good plan whereby a good Home Study Nature Club might be set in running order. If so, tell us about it, won't you, please?

Our Letter Box.

Dear Puck and Beavers,—This is the first time I have written to the Circle. My father has taken "The Farmer's Advocate" for about two years, and we all like it very much. Every Thursday afternoon I hurry home from school to read the letters.

We had quite a mad-dog scare a few days ago, as there was one went along the road, but fortunately it was shot at Byron.

I live on a farm four miles from London. I go to school every day, and am in the Senior Third Class. There are about sixty pupils in our school. We have a library. It contains twenty-five books. I have read twelve of them. One was Black Beauty and another Bravely Borne, A Brave Baby, Little Indian Children, Alice in Wonderland, and some others that I forget the name of. I will close, wishing the Beavers success.

FLORENCE BAKER
(Age 10, Book III.)

Tambling's Corners, Ont.

Dear Puck,—"Say, Beavers, don't you think it would be nice if we could have a badge with a beaver on it?" I do.

I am studying to be an artist.

My brother is a lumberman; he has eight teams hauling now. There is a river not far from here, and we have a good time fishing in it.

I would like correspondents of my own age (14).

JOSEPH A. MacDONALD (Book IV.)
Upper Welsford, N. B., Canada.

You should figure in our drawing competitions, Joseph.

Dear Puck,—As this is my first letter I do not want to take up too much room. My papa has taken "The Farmer's Advocate" for a number of years, and I like reading the stories very much. I wish it was a daily paper instead of a weekly paper. I go to school every day and I like our teacher very well. I live on a farm of 200 acres. We have some land in Saskatchewan, and I would like to go out there. Papa has been up twice, and we expect to move out in a year or so. I have for pets one dog and a cat. I and the dog do not have so much fun when he is muzzled. I have two sisters and a brother. I will close now, wishing success to "The Farmer's Advocate."

DEAN CLINTON.
(Age 10, Book III.)

Eversham, Ont.

Beaver Circle Notes.

The following would like some Beavers to correspond with them: Mildred Orchard (age 13, Class V.), Sheddon, Ont.; Lillibelle Graham (age 10, Book III.); Middlemiss, Ont.; Gladys McCallum (age 10, Book III.); Iona Station, Ont.; Helen M. Hodgins (age 9, Book III.); Osna-bruck Centre, Ont.

Riddles.

1. There is a hill and on the hill there is a mill and in the mill there is a table and on the table there is a box and on the box there is a bottle and in the bottle there is a drop. No person can live without that drop. Ans.—A drop of blood.—Sent by Johnnie Gascho.

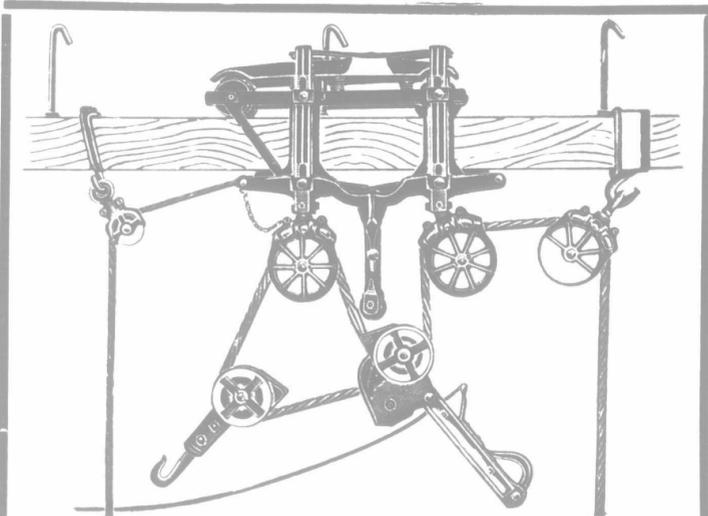
The Junior Beavers.

Dear Puck and Beavers,—This is my second letter to the Circle, but before it was not printed. My father takes "The Farmer's Advocate," and I enjoy reading it. I go to school, and have about a mile to walk. We have lots of fun at school. I play the organ, and can play quite a few pieces. I have a little brother; his name is Robert. I have read quite a few books. These are the names: "In His Service," "Little Nell," "Merchant of Venice." I will close.

ELLENIE MAY MACKEY.

(Age 9, Class II., Sr.)
North Gower, Ont.

Dear Puck, it was storming this morning and I had to go to school, as I



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The Only SLING OUTFIT on the market that can LOWER its load in the mow. This SLING OUTFIT will unload your whole harvest of Hay and Grain, bound or unbound, such as Hay, short dry Clover, loose Barley, Pans, Sheaves, Seed Clover and Cornstalks. And the beauty of it is, it places its load in the mow in such nice shape. The sling load don't have to fall all the way from the track, in the peak of the barn, down to the mow, as with all other Horse-forks or Sling-outfits.

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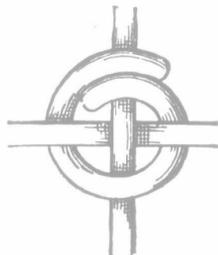
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Number	Line Wires	Inches High	Inches Slays Apart	Size of Wire	SPACING Between Line Wires	Per Rod Freight Paid
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8-40	8	40	16½	" 9	3.4.5.6.7.7.8	29 c
7-48-0	7	48	22	" 9	5.6.7.9.10.11	25 c
8-48	8	48	16½	" 9	4.5.6.7.8.9.9	30 c
9-48	9	48	16½	" 9	3.4.5.5.6.8.8.9	32½ c
9-48-0	9	48	22	" 9	3.4.5.5.6.8.8.9	30 c
10-50	10	50	16½	" 9	3.4.4.5.5.5.7.8.9	35 c

These prices include freight prepaid to any point west of Toronto; east of Toronto add 1c. per rod to above prices. To New Ontario, Quebec and Maritime Provinces, a special allowance will be made to assist in freight. Write for sample knot. All fence put up in 20-, 30- and 40-rod rolls. Remit cash with your order by registered letter, post-office or express order.

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Sharples Dairy Tubular Cream Separators

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in preference to disk filled or other common, complicated machines. The illustration shows all there is to the Sharples Dairy Tubular bowl. It contains neither

disks nor other contraptions, produces twice the skimming force, skims faster, skims twice as clean, wears a lifetime and is several times easier to clean than common separators. The World's Best. The manufacture of Tubulars is one of Canada's leading industries. Sales easily exceed most, if not all, others combined. Probably replace more common separators than any one maker of such machines

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DOES A WASHING JUST LIKE PLAY!

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Ladies! Just see how easy I do a big washing with my 1900 Gravity Washer. I start the tub a-whirling. Then the gravity device under the tub begins to help and the rest is just like play. Washes a tubful in six minutes! How's that for quick and easy work? The 1900 Washer Co. sent me this marvellous machine on trial. They didn't ask for notes or cash in advance. And they let me pay for it a little each week out of the money I saved me! They treat everybody the same way



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on thirty days' trial, the same as I got mine. The company will let you pay for it on the same easy terms they offered me. The Washer will actually pay for itself in a very short time. Mine did! I wouldn't take \$100 cash for my 1900 Gravity Washer if I couldn't get another just like it. It does beautiful work—handles anything from heavy blankets to daintiest laces. Every housewife who is tired of being a drudge and a slave to the washtub should write to

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PHILP & BEATON Real estate Brokers, Whitevale, Ont. When Writing Mention The Advocate

have a long way to go. I am seven years old, and I am in the Part Second Book. I like going to school. I study arithmetic and geography. I have a black cat; her name is Mouser. I am glad I have no dog to put a muzzle on. I like reading "The Farmer's Advocate."

CECIL FERRIER, Thornton, Ont.

Dear Puck,—This is my first letter to the Circle, so it will not be very long. I have got a dog named Tricks, and he is very fond of chasing stones. He will run after them all day. I have a cow named Daisy that I milk. I live near Ladner, B. C. ADORA McGREGOR (age 6), Ladner, B. C.

Dear Puck and Beavers,—This is my first letter to the Circle. I live in Kent County. I go to school every day, and I have to go about two miles. My father takes "The Farmer's Advocate." We like it very much. I am so interested in the letters of this Circle that I thought I would write one too. I am nine years old, and I have two brothers, Alex, and Archie. Alex, is seven years old and Archie five. JEAN BLACKBURN (age 9), Dresden, Ont.

Dear Puck,—Other little girls write to you, so I thought I should try. I have never gone to school, but I am seven years old, and mother taught me at home. I have feet nearly as long as she has, so perhaps you will print this. I read in the second book. I have no one to play with, not even a dog now, as it has a muzzle on, and even with that it might scratch me, and I should have to go to a hospital. I have lots of dolls and a Teddy bear. I think perhaps this is enough. Your new friend. AGNES HUNTER, Millgrove, Ont. (Age 7).

Dear Puck,—We live between three small villages, Hawkesville, Heidelberg and St. Jacob's. We go to school at Heidelberg. We have two miles to walk. I am in the Senior Second Class. At our examination this spring, I passed with the highest marks into that class.

For pets I have a three-colored cat (her name is Beauty), and my little brother Jonathan; he is two years old and can talk so funny. I think you are a lady, although most of the Beavers think you are a man. Here are a few riddles: 1. Why is a blind man like a liar? Ans.—Because all he says is blind talk. 2. Why should we never sleep on a railway carriage? Ans.—Because the train always runs over sleepers. 3. What is the difference between a tight boot and an oak tree? Ans.—One makes acorns, and the other makes corns ache. KATIE MARTIN (Age 9, Book II.), St. Jacob's, Ont.

Queer Things. II. (Continued.) Last day you learned that maggots, or things that you have often called "worms," may not be called worms at

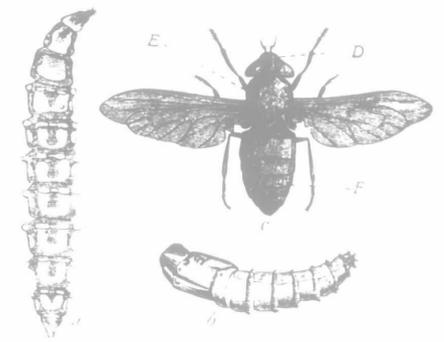
all, but larvæ, that may finally "turn into" flies, bees, wasps, mosquitoes, "bugs," or even moths or butterflies, and perhaps you said to yourself, "Well, where did the larvæ come from?" You see, I am taking it for granted that you are already beginning to use these words.

Well, the larvæ were simply hatched out of eggs, the teeniest little eggs, which were laid by the full-grown female insect in dust, dirt, rotting wood, on water, or in the flesh of some fruit or vegetable, according to the species of the insect. The female house fly, you know, likes to lay her eggs in horse manure, best of all, while the codling moth is more dainty, and puts hers into a young apple. Away down South, there is even a kind of flea, the "jigger flea," which pierces the skin of people's feet, if she can get a chance, and puts her eggs in there. The eggs, of course, hatch out into larvæ; these grow bigger, and finally make a sore little lump, which has to be cut open so that the jiggers can be taken out.

All larvæ, then, come from eggs. The next step is very curious. All at once, the lively, wiggling creature, which has been sucking or eating nourishment as fast as it can—as you know by the way the cabbage worm, which is only a kind of larvæ, eats—lies very still in a crevice somewhere, and begins to grow a hard covering all over it. Some kinds even spin a covering of silky thread, called a cocoon, all around them. Perhaps you may have found one of these cocoons fastened to a shrub or fence. Now, for a while it lies as still as a little mummy in its hard case, or soft cocoon, but all the time queer changes are going on. The pro-legs are disappearing, the body is becoming divided more distinctly into the three parts: head, thorax, and abdomen, and wings are slowly being formed. When the change is complete, the creature, now a full-fledged insect, becomes restless, and begins to struggle, and, finally, out it pops through a hole in the cocoon, or pupa-case. . . . While it is changing from the larvæ, or caterpillar, to the winged insect, by the way, it is not called larvæ, but "pupa." So, now you know what a pupa is. If you examine one closely, you will find queer little leg and wing forms taking shape on it.

Now, do you think you will ever look at a maggot, or "worm," or caterpillar again without being interested in it? You see, you know now that these queer things are just baby flies, or beetles, or wasps, or butterflies, or ever so many other things, according to the kind of larvæ it may be. PUCK.

WOMAN'S INCONSISTENCY. How many women there are who refuse to wear misfit or old-fashioned clothing, a shabby hat or slovenly shoes, yet who will exhibit to the gaze of everyone a face that is anything but fair to look upon, a complexion spotted, blotched, freckled or discolored, and very often disfigured with moles, ruptured veins, pock-marks, or that very masculine disfigurement, superfluous hair. If anything is wrong with your complexion, your hair, scalp, hands, feet or skin, call on or write the Hiscott Dermatological Institute, Hiscott Building, 61 College Street, Toronto. A specialty is made of the home treatment of skin diseases. Write for free consultation and booklet.



Horse Fly. A larva, B, pupa, C, and P. of the horse fly, E. (See page 963.)



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Perhaps you are deterred from enjoying the delights of a New Scale Williams Piano in your home, by the thought of laying out several hundred dollars in a lump sum. This is unnecessary. By our unique plan, you gain the piano of your choice by easy payments.

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SHORTHORN BULL

For sale, 18 months. A good one in every way. His dam carried off the honors in calf class at Annapolis Winter Fair. Sire, Martha's Last (75482), out of Martha's 9th (8769) imp. Price and particulars upon application. A QUICK sale will buy him CHEAP! S. M. PEARCE, 107 A, ONTARIO. FOR SALE: TWO GOOD YOUNG Shorthorn Bulls. Also bought a cow. Sired by Lord Gordon; bred by A. W. Ross, Elgin, Scotland. Inspection invited. JAS. RUSSELL, RICHMOND HILL, ONTARIO.

Current Events

Earl Grey has been summoned to England.

Captain C. S. Rolls, on June 2nd, crossed the English Channel twice in an aeroplane. He is the first Englishman to accomplish the feat.

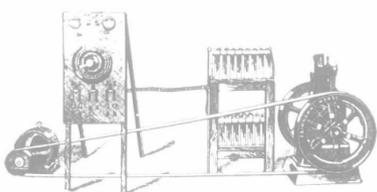
Captain R. F. Scott, in command of the British Antarctic expedition, set sail from England on June 1st, in the Terra Nova. He hopes to arrive at the South Pole in December, 1911.

Anonymous letters have been sent to all the legations in Peking, warning the Ministers that an anti-dynastic revolution is pending in China, and advising the diplomats to take no side with the Manchus, to which the reigning family belongs.

The South African Act of Union came into effect on May 31st, when Lord Gladstone was sworn in as Governor-General, and the Premier, General Botha, with the Cabinet which he had chosen impartially from both Boers and English, took the oath of office. Lord Gladstone, who, prior to his acceptance of a peerage, was known as Hon. Herbert Gladstone, is a son of the former Premier of England, Hon. W. E. Gladstone.

Lighting the Country Home.

Ten years ago, it was customary for the man who was showing his country home to his friend from the city, to say, apologetically: "Of course, you haven't the conveniences here that you have in the city, but you can't expect to have everything you want when you live so far away from the city." In recent years, however, modern progress and invention have given more serious attention to the home in the small town, and there is a growing disposition on the part of the man who dwells "far from the madding crowd" to insist on just as much comfort as his city brother. It is now no uncommon occurrence to find a country home equipped with bathrooms, hot and cold running water, and electric lights in every room. For lighting country homes, several plans have been devised, but the most modern and successful is the electric lighting plant illustrated below.



Fairbanks-Morse Electric Lighting Plant, for Residence or Factory.

This outfit will operate 50 15-watt, 12-C. P. Tungsten lamps, as steadily and reliably as a city plant. It offers a relief from the dirt, danger and unsanitary condition arising from old methods of illumination, and gives an economical light that is both safe, convenient and healthful. In fact, there is no substitute for the soft, white light diffused by Tungsten lamps—it is even said to rival daylight. The same engine can be used for operating a pumping plant or other machinery. The engine operates on gas or gasoline. The outfit includes a Fairbanks-Morse Special Gasoline Engine and Dynamo, Storage Battery, Switchboard, Lamps and Sockets. Everything is furnished except the wire, which can easily be obtained anywhere. The Dynamo will operate 50 15-watt Tungsten lamps for a total cost of five cents per hour, with gasoline at ten cents per gallon. This is certainly very cheap, considerably cheaper than the city dweller can purchase his lights. The dynamo can be run during the hours when the most light is needed, and the extra power generated up the storage battery. This arrangement makes the light available at all

times, whether the engine is running or not. When fully charged, the storage battery will run 9 lights for 8 hours, 13 lights for 5 hours, 18 lights for 3 hours, or 80 lights for 1 hour.

The outfit is easily cared for, is durable and efficient, and occupies very small space, and is proving wonderfully popular for high-class country residences and farms. It is being sold in Canada by the Canadian Fairbanks Co., Limited.

The Language of Gems.

JANUARY—THE GARNET.

By her who in this month is born, No gem save Garnet should be worn; It will ensure her constancy, True friendship and fidelity.

FEBRUARY—THE AMETHYST.

The February-born will find Sincerity and peace of mind, Free from passion and from care If they the Amethyst will wear.

MARCH—THE BLOODSTONE.

Who in this world of ours their eyes In March first open shall be wise, In days of peril firm and brave And wear a Bloodstone to their grave.

APRIL — THE DIAMOND OR WHITE TOPAZ.

She who from April dates her years, Diamond should wear, lest bitter tears For vain repentance flow; this stone Emblem of innocence is known.

MAY—THE EMERALD.

Who first beholds the light of day In Spring's sweet flowery month of May, And wears an Emerald all her life, Shall be a loved and happy wife.

JUNE—THE AGATE.

Who comes with Summer to this earth, And owes to June her day of birth, With ring of Agate on her hand, Can health, wealth, and long life command.

JULY—THE RUBY.

The Glowing Ruby should adorn Those who in warm July are born; Then will they be exempt and free From love's doubts and anxiety.

AUGUST—THE MOONSTONE.

Wear a Moonstone, or for thee No conjugal felicity; The August-born without this stone, 'Tis said, must live unloved, alone.

SEPTEMBER—THE SAPPHIRE.

A maiden born when Autumn leaves, Are rustling in September's breeze, A Sapphire on her brow should bind— 'Twill cure diseases of the mind.

OCTOBER—THE OPAL.

October's child is born for woe, And life's vicissitudes must know, But lay the Opal on her breast, And hope will lull those woes to rest.

NOVEMBER—THE TOPAZ.

Who first comes to this world below With drear November's fog and snow Should prize the Topaz's golden hue, Emblem of friends and lover true.

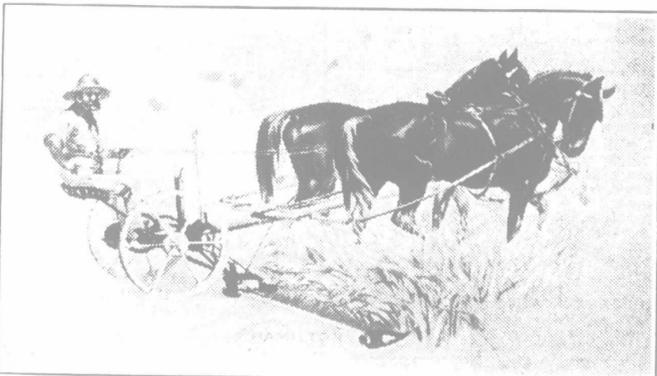
DECEMBER—THE TURQUOISE.

If cold December gave you birth, The month of snow, and ice, and mirth, Place on your hand a Turquoise blue, Success will crown whatever you do.

Journalistic Enterprise.

Miss Elizabeth Banks—whose "Autobiography of a Newspaper Girl" is one of the most human, delightful books I have ever read. Miss Banks was wont in her early days to seek temporary employment as a housemaid, or laundress, or governess, and then supply the press with an amusing story of her experiences. A Paris journalist, plagiarizing the idea, assured a gentleman in the street that he was Napoleon I., and was promptly transferred to an asylum as a patient suffering from delirious obsessions. So far so good. The chap had to himself, made his notes, collected his copy, got together

THE HELP THE FARMER LONGS FOR



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It will cut ALL the grass, whatever its condition or the condition of the surface of the ground. It is exceptionally light in draft. It can be stopped and started in the heaviest clay. The pull is direct from the whiffletrees to the main shoe on the cutter bar, thus eliminating side draft. The tilt lever has lots of range of movement. The bearings are all equipped with Roller Bearings or Removable Bushings. The FOOT LIFT is convenient, easily operated, and is balanced by a lift spring. The GEARS are in perfect mesh and have lots of power.

The Cutter Bar

is flexible. Will cut close at any angle. Is made of heavy steel, sufficiently strong to prevent sagging, and is supplied with steel wear plates which, when worn, can be replaced, thus giving the new wearing surface for the knife bar. The Pivman is long and has a direct and easy stroke, and is well protected by the drag bar from stones, etc. Before buying a mower be sure and see the agent, and find out what a good proposition can be offered by

The Peter Hamilton Co., Limited,
PETERBOROUGH, ONT.

Mr. Farmer, You Surely Want the Best! Nothing Less Should Satisfy the Progressive Farmer.



Probably no cultivating machine is so widely known and used throughout the farming world to-day as the

PLANET JR. NO. 8

We guarantee this machine the best made, and unsurpassed for general efficiency, while it is exceedingly strong, simple, accurate and positive in all positions. Our price, delivered, freight prepaid, to purchaser's station, \$10.50.

KENNETH McDONALD & SONS, OTTAWA, ONT.

T. H. HASSARD'S NEW IMPORTATION!



Clydesdale Stallions and Fillies

are now in my stables at Markham, Ontario, and, as usual, I have a big range for selection, of a type, breeding and quality seldom equalled, never excelled, by any previous importation. Call and see them. Phone connection.

T. H. HASSARD, Markham, Ont.

material for an admirable and sensational article. And then, like Sterne's stalling, he wanted to get out. Thereupon the trouble began. He requested to be brought before the medical board of examiners, to whom he gracefully explained the situation, but these gentlemen shook their heads, and merely credited him with a new delusion. The unfortunate man was kept under the closest watch and restraint, but at last induced one of the nurses to convey news

of his dilemma to his paper. His tribulations, however, are not yet over, for the doctors have refused to accept the explanations offered, and certify unanimously that the man is a dangerous lunatic! Doctors are tenacious persons, and have the poorest appreciation of a joke. A special commission has been appointed to investigate the case; but it is safe to assume that this particular Journalist will avoid madhouses in future. —[The King, in Saturday Night.

POULTRY AND EGGS

Condensed advertisements will be inserted under this heading at two cents per word each insertion. Each 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 good pure-bred poultry and eggs for sale will find plenty of customers by using our advertising columns. No advertisement inserted for less than 30 cents.

BUFF Orpington eggs that hatch; nine chicks guaranteed. Four special pens, \$3 setting. Splendid utility stock, extra heavy layers, \$1 setting. Illustrated catalogue free. Hugh A. Scott, Caledonia, Ont.

GREAT REDUCTION—Famous Pride of Ontario strain of Rose-comb Rhode Island Reds and White Wyandottes, are prizewinners. Record-breaking layers, large, healthy, vigorous; illustrated circular free. Eggs, special reduction price, only 75 cents per 15. We guarantee satisfaction. Robert Smith, Colville, Ontario.

SINGLE-COMB BROWN LEGHORNS—Twenty eggs, one dollar; one hundred, four dollars. Single-comb Black Minorcas, thirteen eggs, one dollar. Isaac Reed, Ardrea, Ontario.

S. C. W. LEGHORNS—Prizewinning and great laying stock. Eggs, \$1.00 per 15. A hatch guaranteed. Geo. D. Fletcher, Binkham P.O., Ontario.

TO CLEAR AT A BARGAIN—First-prize 1906 Toronto pullet, second and third prize 1907 Toronto pullets, third-prize London pullet and two good yearling hens. The first ten dollars takes this nice bunch of six. Also, six good Orpington yearling hens; five dollars. H. Weston Parry, Princeton, Ontario.

WHITE ROCK EGGS—Good laying strain, \$1.00 per setting. Highworth Poultry-Yards, London, Ontario.

WANTED—A few private farmers to ship me Poultry, Eggs, Dairy Butter, Syrup, and all other farm produce. Will pay highest market price. W. J. Falle, Prince Albert Ave., Westmount, Montreal.

SPRING BANK FARM Offers S. C. Brown Leghorn eggs at \$1 per 15, \$4 per 100. Excellent layers from prizewinning strain. Satisfaction guaranteed. Wm. Barnet & Sons, Fergus P. O., Ont.



Advertisements will be inserted under this heading, such as Farm Properties, Help and Situations Wanted, and Pet Stock. **TERMS—Three cents per word each insertion. Each initial counts for one word and figures for two words. Names and addresses are counted. Cash must always accompany the order. No advertisement inserted for less than 60 cents.**

FOR SALE—Iron, Pipe, Pulleys, Belting, Rails, Chain, Wire Fencing, Iron Posts, etc.; all sizes very cheap. Send for list, stating what you need. The Imperial Waste & Metal Co., Queen St., Montreal.

SEED CORN—\$1.00 per bushel in three varieties. LEAMING, PRIDE OF NORTH, SOUTHERN SWEET, BAGS, 25c each. CALEDONIA MILLING CO., CALEDONIA, ONT.

VANCOUVER ISLAND offers sunshine, mild climate; good profits for ambitious men with small capital in business, professions, fruit-growing, poultry, farming, manufacturing, lands, timber, mining, railroads, navigation, fisheries, new towns; no thunder storms, no mosquitoes; no malaria. For authentic information, free booklets, write Vancouver Island Development League, Room A, 102 Broughton St., Victoria, B.C.

WANTED—Persons to grow Mushrooms for us. Waste space in cellars, gardens and out-houses can be made yield \$15 to \$25 per week. Mushroom beds bear every month in the year. Illustrated booklet free. Montreal Supply Co., Montreal.

WE HAVE FARMS of all sizes and suitable for all kinds of farming in every county in Western Ontario. Send for our catalogue. **The Western Real-estate Exchange, Ltd., 78 Dundas St., London, Ont.**

MANURE FOR SALE.

Union Stock-Yards, Toronto.

Hegan I think Miss de Blank is very rude.
Jones—What causes you to think that?
I never thought her so.
Hegan I met her out for a walk this afternoon, and asked if I might see her home. She said yes, I could see it from the top of the high school building, and that it was not necessary to go any farther.

When Old Age Comes.

By Burges Johnson.

If God grant me old age
I would see some things finished, some
outworn;
Some stone prepared for builders yet
unborn.

Nor would I be the sated, weary sage
Who sees no strange new wonder in
each morn.
And with me there on what men call the
shelf

Crowd memories from which I cull the
best,—
And live old strifes, old kisses, some
old jest;

For if I be no burden to myself
I shall be less a burden to the rest.

If God grant you old age,
I'll love the record writ in whitened
hair,
I'll read each wrinkle wrought by
patient care,

As oft as one would scan a treasured
page,
Knowing by heart each sentence graven
there.

I'd have you know life's evil and life's
good,
And gaze out calmly, sweetly on it all—
Serene with hope, whatever may befall,
As tho' a love-strong spirit ever stood
With arm about you, waiting any call.

If God grant us old age,
I'd have us very lenient toward our
kind,
Letting our waning senses first grow
blind

Toward sins that youthful zealots can
engage,
While we hug closer all the good we
find.

I'd have us worldly foolish, heaven wise,
Each lending each frail succor to with-
stand,
Ungrudging, ev'ry mortal day's demand;
While fear-fed lovers gaze in our old eyes,
And go forth bold and glad and hand
in hand.

—Harper's Magazine.

More Than Once.

If at first you do succeed,
Try again!
Life is more than just one deed;
Try again!
Never stop with what you've done;
More remains than you have won;
Full content's vouchsafed to none;
Try again!

If you've won on lower plane,
Try again!
Life is more than one campaign;
Try again!
Send your guidons to the fore;
Strive to seize one standard more;
Still ungained are palms galore;
Try again!

If at first you do succeed,
Try again!
For future harvest sow the seed;
Try again!
Rise with sacred discontent;
Realize that life is lent;
On highest searches to be spent;
Try again!

—Our Young Folks.

The Roundabout Club

Biographical Sketches.

Robert Southey.
Robert Southey was born at Bristol, England, on the 19th of August, 1774. His father was a small linen-draper of straitened circumstances, but, by the generosity of rich relatives, young Robert was given a chance to obtain an education. He was first taken in charge by an aunt, a Miss Tyler, with whom he lived for some years, at Bath. Here the life was lonely for a boy of his years, but there were two circumstances which were destined to exercise an important influence on his future life. In the first place, Miss Tyler was fond of literature, and had an ex-

tensive library, which the lad might use at will; in the second, she was passionately fond of the theatre, and took him to see many plays. As a consequence, his poetical temperament was encouraged, and it is not surprising to find that, at a very early age, he had decided to become a writer of dramas.

In 1788 he was sent to the Westminster school, whence, after four years, he was expelled for having written an article against flogging for the school paper. During this period he does not appear to have greatly distinguished himself as a student; he had, however, spent much time on old books of romance and legends, and had been greatly impressed by Spencer, Tasso, and Gibbon's "Decline and Fall of the Roman Empire." The age, too, was one for the breeding of poets. It was the time of Washington, of the fall of the Bastille, of the great revolutionary spirit which had sent the cry, "Liberty, Equality, Fraternity!" to the hearts of many a young Englishman, as well as to those of the surging masses of France, and which in England, removed from the scenes of actual conflict, found expression through the burning pens of those who might wield no stronger weapon.

After leaving Westminster, Southey was enabled, through the generosity of an uncle, to go to Oxford, which he never liked, the only event of his stay there which seems to have made any impression on him being his acquaintance with the works of the old philosopher, Epictetus. "I carried Epictetus in my pocket," he wrote, "till my very heart was engrained with it." During this period, however, he wrote some of his shorter poems, and, with Coleridge, formed a wonderful plan to go to America, the land of freedom, to found there an Utopian colony on the banks of the Susquehanna. The two were to be joined by another young friend, Lovell, and were to marry sisters of Lovell's wife, Martha and Edith Fricker.

Events, however, followed more quickly than the young poets had calculated. Miss Tyler found out about Miss Fricker, and ordered Southey from her house. In desperation for want of money, he published his "Joan of Arc," and the proceeds from this proving inadequate, was glad enough to accept the invitation of an uncle to spend six months with him at Lisbon. Before going he secretly married his Edith, and, on his return, attempted to make some provision for establishing a home by taking up the study of law, continuing, meanwhile, to write articles for the magazines and to elaborate his plans for "Thalaba" and "The History of Brazil."

Finding that he could make a living by his pen, he took his wife, in 1803, to Keswick, in the Lake Country, where, with Coleridge, he entered upon the career of literary work which he pursued for the rest of his life.

Success came to him partly, perhaps, by reason of his indefatigable industry, for his talents were not, in poetry, at least, of the most brilliant order. In 1813 he was appointed Poet Laureate; in 1820 he was given the degree of LL. D. by Oxford University; in 1826 he was elected to Parliament, although he never sat in the House; in 1835 he was offered, and declined, knighthood, and was given, instead, by Sir Robert Peel, an annual pension of £300.

During his later years, bitter troubles came to him. His favorite son and a daughter died, and when, in 1835, his wife also passed away, he received a shock from which he never recovered, although two years later, for the mere sake of companionship, he married an old friend, Caroline Bowles, then fifty-two years of age. Finally his mind gave way altogether, and for the last three or four years of his life he rambled aimlessly about the gardens and in his beloved library, in which he had collected 11,000 volumes. "I left him," says Wordsworth, describing a pain-

ful visit, "patting with both hands his books, affectionately, like a child."

He died in 1843, leaving behind him the record of a life of unusual purity, sympathy and charity, for he had lived, as far as man could, the ideal he taught in his books. Out of the fifty books and innumerable magazine articles which he wrote, he is, perhaps, best remembered by a few of his shorter poems, "The Battle of Blenheim," "The Holly Tree," and others, and by his fine biography, "The Life of Nelson," which holds its place among the masterpieces of English literature. The most important of his other works are, beside those already mentioned, "Madoc," "The Curse of Kehama," "Lives of Wesley and Bunyan," "History of the Peninsular War," and a "Naval History."

John Stuart Mill.

John Stuart Mill was born in London, May 20th, 1806, the eldest son of James Mill, Head Examiner of the East India House, philosopher, author of the "History of British India" and other works. "A remarkable son of a remarkable father," it has been said of him; yet the younger Mill was ostensibly the more lovable character of the two, less the stoic, more filled with the "milk of human kindness," and this, in spite of the fact that he was the victim of as strange a system of education as was ever experimented upon a human being.

Until he was almost grown, John Stuart Mill was, in fact, the pupil of his most brilliantly-educated father. At three years of age he was set to learn the Greek alphabet; at eight he began Latin, and was able to read a number of Greek prose authors, before his twelfth year, he was familiar with Virgil, Horace, Livy, Sallust, Homer, Demosthenes and Aristotle's Rhetoric, in addition to volumes of history; Hume and Gibbon, and, for lighter literature, Arabian Nights and Don Quixote. In addition, he was expected to teach his younger brothers and sisters, and to spend his time for exercise in walking with his father, learning, by conversation, all the way.

At twelve he began Logic and Political Economy, became enamoured of treatises on chemistry, and was given constant exercise in "dissecting bad arguments and finding in what part the fallacy lay." Indeed, in all things he was thrown upon his own powers of judgment. "Anything which could be found out by thinking," he says, "I never was told until I had exhausted my efforts to find it out for myself."

But he had no childhood. He was kept away from other boys, and knew nothing of the physical education which comes of spontaneous play. "I never was a boy," he said, many years afterwards, giving us a brief glimpse into that pitifully solitary, stillhood time of early youth. "I never played at cricket; it is better to let Nature have her own way."

Stranger than all, he was taught less of religion than the veriest pagan. "I grew up in a negative state with regard to religious belief," he says. And, indeed, during his whole life, Mill passed for a free-thinker, although, as time went on, there were evidences that he did not wholly repudiate religion, but only what seemed to him the popular but mistaken conception of it, as exemplified in the teachings of the time. "Think," he used to say, "of a being who would make a Hell—who would create the human race with the infallible fore knowledge, and therefore with the intention that the great majority of them were to be consigned to horrible and everlasting torment. The time, I believe, is drawing near when this dreadful conception of an object of worship will be no longer identified with Christianity."

Upon reaching the age of fourteen, Mill spent a profitable year with the family of Sir Samuel Bentham, in France, where he became deeply im-

pressed with the beauty of the mountain scenery, and found time, along with his advanced study of logic and the higher mathematics, to make some acquaintance with French literature.

On his return he continued his studies under his father, being now required to write out a complete abstract of various books, accompanied by remarks of his own; and in 1822 he started the so-called Utilitarian Society, and somewhat later the Speculative Debating Society, to which a knot of thinkers much older than he were attracted for purposes of argumentation and study.

In 1823 he also obtained an appointment in the East India House, and about the same time he began to come into prominence as a writer for various magazines, chiefly on subjects of political economy.

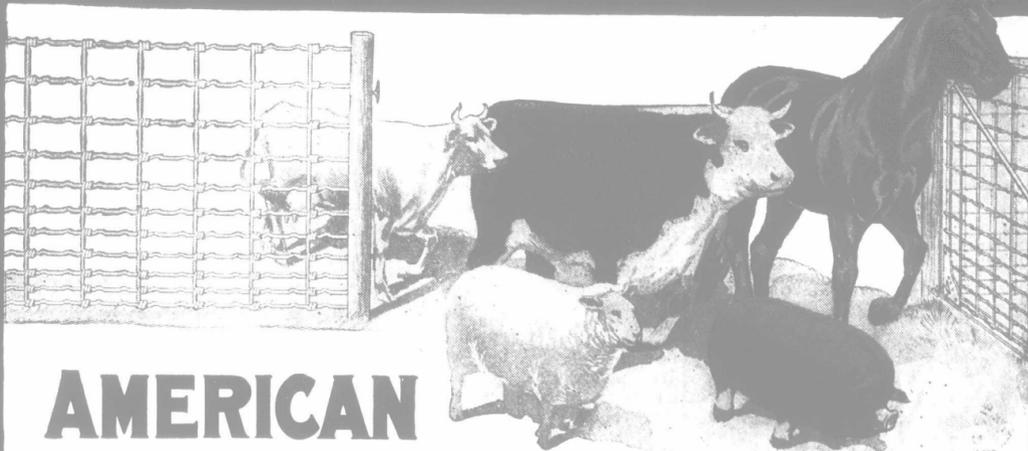
He had started out confident in agreement with the theories of the Benthamite school, which made much of the creed that happiness should be the chief quest in life, and but little or nothing of the duties of service; but such nutriment was not sufficient for a soul really capable of deep feeling, although long, apparently, deadened by an enforced Stoicism, and by too continually analytic habits of mind. He describes his condition at this time as one of "dry, heavy dejection," a state described, as it seemed to him, in Coleridge's Ode. Then, with the reading of Marmontel's Memoires, a gleam of light came. "I was moved to tears," he says. "I was no longer hopeless. I was not a stock or a stone." And finally the conclusion forced itself on him—his final separation from the Benthamites—that, "Those only are happy who have their minds fixed on some object other than their own happiness; on the happiness of others, on the improvement of mankind, even on some art or pursuit, followed not as a means, but as itself an ideal end."

Henceforth Mill was consecrated anew to the service of mankind. He was to make mistakes. He was to meet fierce criticism, as well as enthusiastic applause. He was to change divers opinions from time to time, as every man must who is growing, instead of standing still; but he was to prove himself one of the public forces, one of the most original thinkers of his time.

"Ask yourself whether you are happy," he said, "and you cease to be so. The only chance is to treat, not happiness, but some end external to it, as the purpose of life. Let your self-consciousness, your scrutiny, your self-interrogation exhaust themselves on that; and if otherwise fortunately circumstanced you will inhale happiness with the air you breathe, without dwelling on it or thinking about it. . . . This theory now became the basis of my philosophy of life, and I still hold to it. It is the best theory for the great majority of mankind." . . . Henceforth, Mill was to constitute himself "a theoretical reformer of the opinions and institutions of his time. He was to devote himself to questions of government, to efforts in behalf of the working people, of the Irish peasantry, of women's suffrage, of reform in the law. Above all things, he was to become an exhorter to the development of individuality. "I saw," he said, "that, though our character is formed by circumstances, our own desires can do much to shape those circumstances, and that what is really inspiring and ennobling in the doctrine of free-will is the conviction that we have real power over the formation of our own character that our will, by influencing some of our circumstances, can modify our future habits or capabilities of willing."

Individuality, he considered should be encouraged by educating the masses, and he never ceased to advocate a better representation for the working-people in Parliament than they then were given. In later years he became to some degree an advocate of Socialism, but not of that socialism which would submerge the individual in the machinery of government.

Through the Gate or Not at All



AMERICAN FENCE

Made of Hard, Stiff Wire, of Honest Quality

Good Fences are a farm investment that bring the most returns for the least money

ARE you losing money? If you had a hole in your pocket, out of which you were losing hard-earned dollars, would you sew it up? The time has arrived when a fence around the farm is as much a necessity as a cultivator.

If you are feeding 60c or 70c corn to hogs in a dry lot, allowing good, green feed to go to waste on other portions of your farm, you have a hole in your pocket, out of which you are losing good, hard-earned dollars. Sew it up.

Look up an American Fence dealer and let him show you how a few dollars invested in fence will yield a big big rate of interest on feed saved.

American Fence is made of hard, stiff steel. It is made of a quality of wire drawn expressly for woven-wire-fence

purposes. Galvanized by latest improved process—the best that the skill and experience of years has taught. Built on the elastic, hinged-joint (patented) principle, which effectually protects the stay or upright wires from breaking under hard usage.

The real test of a fence is the service you get out of it. Test, judge and compare American Fence under any and all conditions, and you will find that the steel, the structure and the galvanizing are equal in durability, strength and efficiency to the hardest usage.

The Canadian Steel & Wire Co., Limited
HAMILTON, ONT. WINNIPEG, MAN.

NOTE.—Dealers everywhere. See the one in your town and have him show the different designs and give prices. Also get from him a booklet, "How to Build a Cheap Concrete Fence Post," furnished free for the asking.

"The Brake that Makes the Wheel Run Easy."

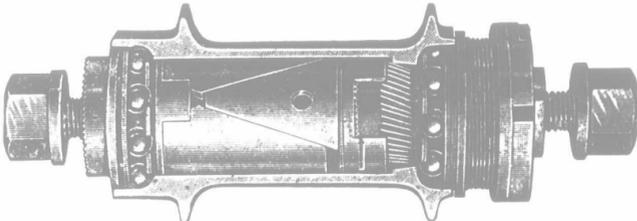
The Hercules Coaster Brake

There were more "Hercules" brakes sold in Canada last year than all others combined.

One reason for the "Hercules" popularity is that it is lighter in weight than any other. The "Hercules" is an armless brake, a great feature in any bicycle. A child can take it apart and reassemble it.

Positive in action and easy running when released. It wears well because it is solidly-simple, and there are no intricate parts to get out of place or become damaged in the wear.

THE HERCULES IS AS SMALL AS THE ORDINARY HUB OF A BICYCLE.



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Canada Cycle & Motor Co., Ltd., Toronto

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Michigan White Cedar

W. C. STERLING & SON COMPANY

Oldest Cedar Pole Firm in Business

Producers for 30 Years

1880

MONROE, MICHIGAN

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Please Mention The Advocate

For Effective Spraying

Get the best Spray Chemicals—Beat the bugs to the foliage—Be thorough. The best spray to use against Codling Moths, Potato Bugs and all leaf-eating insects is

"VANCO" Lead Arsenate

It does not settle in the spray tank as does Paris Green.

It sticks well, and will often stand one or two rains, saving the time and expense of another spraying.

"VANCO" Lead Arsenate never burns the foliage, as Paris Green or improperly prepared Lead Arsenate is liable to do.

Because "VANCO" Lead Arsenate is easily seen on the foliage, spraying can be done much more thoroughly when it is used.

10c. to 13c. per lb. according to quantity. Write for our Booklet on spraying.

"VANCO" Spray Chemicals are High in Quality and Lowest in Price. Made in Canada, by practical men, and offered on their record.

Club your orders and save on freight. 16

Chemical Laboratories Limited
126-136 Van Horne Street, Toronto.

BINDER TWINE!

Central Prison Binder Twine will be supplied to farmers as follows:

600 ft. per lb. 8c. per lb.
550 ft. per lb. 7 3-4c. per lb.
500 ft. per lb. 7 1-2c. per lb.

These prices are net cash. The twine is put up in fifty-pound jute sacks, and is manufactured from SELECT FIBER.

Quality and length are guaranteed. Please specify at once what quality and quantity is required.

Purchaser pays freight, and cash must accompany shipping instructions.

Apply: J. T. GILMOUR, Warden,
Central Prison, Toronto, Ont.

Bone Spavin

No matter how old the blemish, how lame the horse, or how many doctors have tried and failed, use

Fleming's Spavin and Ringbone Paste

Use it under our guarantee—your money refunded if it doesn't make the horse go sound. Most cases cured by a single 45-minute application—occasionally two required. Cures Bone Spavin, Ringbone and Sidebone, new and old cases alike. Write for detailed information and a free copy of

Fleming's Vest-Pocket Veterinary Adviser

Ninety-six pages, durably bound, indexed and illustrated. Covers over one-hundred veterinary subjects. Read this book before you treat any kind of lameness in horses.

FLEMING BROS., Chemists
75 Church St., Toronto, Ontario

KENDALL'S SPAVIN CURE

To Bring Him Back to the "High-Stepping" Class

THE REMEDY USED ALL OVER THE WORLD

For Spavin, Curb, Splint, Ringbone, Soft Bunches, All Lameness

Horse dealers have made thousands of dollars by buying lame, Spavined Horses, curing them with Kendall's Spavin Cure, and then selling the sound animals at a handsome profit.

You can do the same with your own horses. Here is one man who saved his horse and his money by using Kendall's.

Oak Bay Mills, Que., Dec. 15th, 1909.
"I wish to inform you that I have used Kendall's Spavin Cure with good success, on my horse. I found that it cures quickly and well". Yours truly, ROY HARPER.

\$1. a bottle—6 for \$5. A copy of our book—"A Treatise On The Horse"—free at dealers or from us. 48

Dr. B. J. Kendall Co. - - Enosburg Falls, Vt.

GRAND TRUNK RAILWAY SYSTEM

HOMESEEKERS' EXCURSIONS TO WESTERN CANADA

Through the metropolis of Chicago, thence via Duluth and Fort Frances, or through Chicago and the twin cities of Minneapolis and St. Paul.

May 31, June 14 and 28
Via Sarnia and Northern Navigation Company. Steamer leaves Sarnia 3.30 p.m.

May 30, June 15 and 29

WINNIPEG AND RETURN - \$32.00
EDMONTON AND RETURN - \$42.50

Proportionate rates to other Western points.
Tickets good for 60 days.
Secure tickets and full information from Grand Trunk Agents.

Don't Throw it Away

Check Your Granite Dish or Hot Water Bag. Leak?

USE **MENDETS**

They mend all leaks in all utensils—in brass, copper, granite, hot water bags, etc. No solder, cement or rivet. Anyone can use them; fit any surface; two million in use. Send for sample pkg. 10c. Complete pkg. assorted sizes, 25c. postpaid. Agents wanted.

Collette Mfg. Co., Dept. K, Collingwood, Ont.

In 1830 he first met Mrs. Taylor, the lady whom, from that day, he worshipped with an adoration which has placed his love-story among the "Stories of Great Lovers" of the world. With her he studied botany; to her he submitted his essays and his books; to her modifications he submitted; to her he confided his plans for the betterment of humanity. "We looked forward to a time when society will no longer be divided into the idle and the industrious," he says, "when the rule that they who do not work shall not eat, will be applied, not to paupers only, but impartially to all; when the division of the produce of labor, instead of depending, as in so great a degree it now does, on the accident of birth, will be made by concert on an acknowledged principle of justice; and when it will no longer either be, or be thought to be, impossible for human beings to exert themselves strenuously in procuring benefits which are not exclusively their own, but to be shared with the society they belong to. The social problem of the future we considered to be, how to unite the greatest individual liberty of action with a common ownership in the raw material of the globe, and an equal participation of all in the benefits of combined labor."

Meanwhile, people looked askance at the close friendship; Mill's relatives threw him off on account of it; the dull, stupid husband of the lady finally aroused himself to demand a separation; but Mill's devotion never faltered. Twenty years after his first meeting with his "almost infallible counsellor," two years after the death of her husband, he married her.

Mill's passion for Mrs. Taylor has never been understood, many as have essayed the task of diagnosing it. She was, doubtlessly, a clever woman, but to others who knew her, the extravagant encomiums which Mill bestowed upon her, both in his books and in conversation, verged closely on the ludicrous. She was "nothing like what John took her to be," said his brother George. Nevertheless, she probably exercised some small modicum of the influence he has ascribed to her, over this famous man. As critic, she evidently had some skill; she suggested his essay on "The Subjugation of Women," and was, as he proudly proclaimed, his collaborator in writing the volume on "Liberty." Whether she exercised any real influence in the composition of his most famous works, his "Logic," his "Principles of Political Economy," "Thoughts on Parliamentary Reform," "Representative Government," books on "Sir William Hamilton" and "Auguste Comte," must, notwithstanding his avowals, be open to question.

After his marriage to Mrs. Taylor, the family—she had one daughter—removed to Avignon, where less than eight years later she died. In 1865 he was made Member of the House of Commons, where he seems to have won commendation from Gladstone and others, as an advanced Liberal; but he never ceased to make Avignon his home, in order that he might be near the grave of her whom he had so adored.

On the 5th of May, 1873, he took a fifteen-mile walk in search of botanical specimens. Three days later he died, with the words on his lips, "My work is done." He was buried beside his wife, and to-day many a stranger stops to look at the graves, side by side, and to read the inscription, written by the husband, which still speaks of his adoration.

Mill's fame rests chiefly upon his "Logic," "Political Economy," and "Representative Government." He advocated much that found issue in action; some of his recommendations have never been acted upon. But at all events, as John Morley said of him, "He did not think for men, but he made them think for themselves." In so far, not easily can his influence over the political conditions of the British Empire be easily computed.

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It is for you, because it is you who wants it good. You know it costs more to put on poor paint than to put on good paint. Your house should be painted with good paints, with

RAMSAYS PAINTS

to keep it looking fresh and bright and clean for years—costs not too much but just what is right for right paint. We want you to see our handsome little Booklet telling all about house painting. It will help you. Write for copy of our Booklet AB free.

A. RAMSAY & SON CO.,
THE PAINT MAKERS, Montreal.
Est'd. 1842.

A BOON TO FARMERS

—a fence that won't break, and a post that won't rot.

Standard Woven Wire Fence

is heavy steel wire, well galvanized, and locked with the "Tie That Binds"—our exclusive invention, which being an oval loop allows a long bend in the running wires.

STANDARD STEEL FENCE POST is No. 12 gauge steel, bent at right angle, and punched so that the fence is held secure without staples.

Lots of fence facts in our book that you ought to know. Write for free copy and sample lock.

The Standard Wire Fence Co. of Woodstock Limited, Woodstock, Ont. and Brandon, Man. 15

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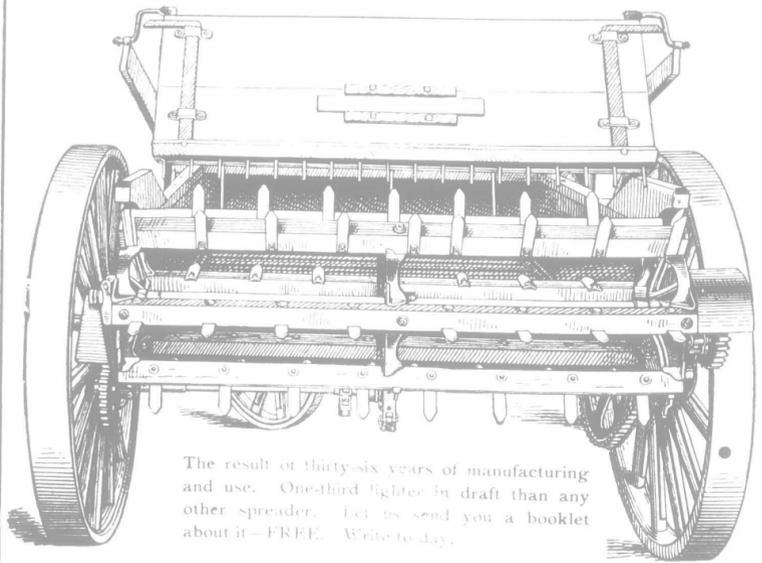
Because it means increased profits. Preserves fruits and vegetables. Operates speedily, cheaply, in store or kitchen. Saves waste. Product sells for good prices. Many users making money. You can, too. Three sizes—100, 200, 400 tins an hour—\$30, \$60, \$90. Send for booklet No. 4 C. Free. A post card brings it.



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CANADIAN: ST. JACOB'S, ONT.

The Kemp Manure Spreader

EQUIPPED WITH
The Reversible, Self-Sharpening, Graded,
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The result of thirty-six years of manufacturing and use. One-third lighter in draft than any other spreader. Let us send you a booklet about it—FREE. Write to-day.

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OF INTEREST TO FARMERS The General Animals Insurance Co'y of Canada

Insure stallions, and also make a specialty of insuring entire colts against risk of death during and after castration.

All kinds of live stock insured.

For particulars apply to :

The General Animals Insurance Co., Limited.
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UNION STOCK - YARDS Horse Exchange WEST TORONTO, CANADA.

The Greatest Wholesale and Retail Horse Commission Market.
Auction sales of Horses, Carriages, Harness, etc., every Monday and Wednesday. Horses and harness on hand for private sale every day.
The largest, best equipped and most sanitary stables in Canada. Half-mile of railway loading chutes at stable door. Quarter-mile open track for showing horses. Northwest trade a specialty.
HERBERT SMITH, Manager. (Late Grand's Repository.)

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The services of any one of the following high-class stallions can be secured for approved mares by applying to the manager: **Mograla**, Champion Standard-bred stallion; **Bingen Pilot**, by Bingen, 2:06 3/4; **Jim Tod**, by Tod, 2:14 1/4, also sire of Kentucky Tod; **Crayke Mikado**, Hackney stallion, Champion at Chicago International, and the Canadian National, Toronto; **Baron Howes**, Champion Clydesdale stallion, considered by expert judges to be the best Clydesdale stallion in America. For all particulars, apply to

JAS. WETHERILL, Manager, Galt, Ont.

CLYDESDALES AND FRENCH COACHERS

We have still on hand a few choice Clydesdale Stallions—all young—that for size, style and quality will stand inspection. We have also a few Clyde fillies imported and Canadian-bred, and two French Coach stallions. Correspondence and inspection invited. Our prices are easy and terms to suit. Phone connection.

R. NESS & SON, HOWICK, QUEBEC.

WAVERLY CLYDESDALES AND HACKNEYS
My 1910 importation of Clydesdale stallions and fillies, and Hackney stallions and fillies, are now in my barns. One and two-year-old Clyde fillies of a character and quality never before excelled. My Hackney stud was never so strong in high-class animals. All are for sale and prices right.
ROBT. BEITH, BOWMANVILLE, ONT.

IMPORTED CLYDESDALES AND HACKNEYS
In my stables at Ingersoll, Ont., I have always on hand Clydesdale stallions and fillies, and Hackney stallions, personally selected in Scotland for their high-class type, quality and breeding. Let me know your wants.
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IMPORTED CLYDESDALE FILLIES
I have still on hand six Clydesdale fillies. They are big, smooth fillies, exceptionally well bred, and their underpinning is the kind Canadians like. I have only one stallion left, a right good one. My prices are as low as any man's in the business. Phone connection.
GEO. G. STEWART, HOWICK, QUEBEC.

Ormsby Grange Stock Farm, Ormstown, P. Quebec.
Importation and breeding of high-class Clydesdales a specialty. Special importations will be made for breeders at minimum cost. My next importation will arrive about June 1st.
Duncan McEachran.

Imported Clydesdales
My new importation of Clydesdale stallions for 1910 have arrived. They were selected to comply with the Canadian standard, combining size, style, quality and faultless underpinning with Scotland's richest blood. They will be priced right, and on terms to suit.
C. W. BARBER, GATINEAU PT., QUEBEC.

CLYDESDALES, Imported and Canadian-bred. I have on hand 2 Imported Clydesdale Stallions, one 4, the other 5 yrs. old; 2 Canadian-bred Clydesdale Stallions, one 2, the other 3 yrs. old; one French Coach Stallion, 4 yrs. old; one Shire Stallion, and the noted Hackney Stallion, Chocolate Jr. I will sell these horses cheap for quick sale.
T. D. Elliott, Bolton, Ont.

CLYDESDALES AND HACKNEYS
We have still for sale several good Clydesdale Stallions; also our prize-winning Hackney stallion, Blanch Surprise, and a few good Clydesdale and Hackney mares. All of which will be sold on reasonable terms. Phone connection.
JOHN A. BOAG & SON, Bayview Farm, Queensville, Ont.

SMITH & RICHARDSON'S CLYDESDALES.
Black Ivory, Commodore, Royal Gretna, Pride of Newmills, Dunure Acknowledgment, Dunure Souter, Captain Vasey, Look Again, Baron Arnie, and some younger ones, all sold, but a few good ones left yet, and at moderate prices.
SMITH & RICHARDSON, COLUMBUS, ONT. Myrtle, C. P. R.; Brooklin, G. T. R.; Phone.

CLYDESDALES and HACKNEYS
We have for sale a few choice Clydesdale mares, imported and Canadian-bred; also some Canadian-bred Clydesdale stallions. Hackney stallions and mares for sale always. Long-distance phone.
Hodgkinson & Tisdale, Beaverton, Ont. G. T. R. and C. N. R.

QUESTIONS AND ANSWERS. Veterinary.

LAME COLT.
Yearling colt went lame. An examination revealed the foot very hard, and a hole extending from the sole half-way up the foot. I removed the hoof as far as the hole, but the colt is still lame and foot hard, and does not grow.

J. S. McA.
Ans.—Examine the hoof carefully, and if there be any pus give it free vent. I do not think the hole you mention causes lameness, as you do not mention the presence of pus. If pus were present here, it no doubt caused the lameness. There may be a ringbone that is not yet visible, but causes the lameness and hardness of the hoof. If possible, locate the trouble. If an abscess, apply warm poultices until lameness ceases, and then turn on damp pasture ground. If a ringbone is present, blister around the coronet every month during the summer. I think it would be wise to have your veterinarian examine this case.

ENLARGED JOINT—LUMP JAW.
1. Mare injured her hind fetlock during the winter, and it swelled badly. We treated it, and the lameness disappeared, but the joint is still enlarged. She scratches now. Would it be advisable to breed her?

J. H. B.
2. Give nature and symptoms of lump jaw.
Ans.—1. Give her a purgative of 8 drams aloes and 2 drams ginger. Apply hot linseed-meal poultices to the scratches for two days and nights. Then wash thoroughly, and rub with flannel cloths until dry. Do not wash again, but apply the following lotion, 3 times daily, until healed, viz.: 1 ounce each of acetate of lead and sulphate of zinc to a pint of water. After this, rub the enlarged joint well, once daily, with the following liniment, viz.: 4 drams each of iodine and iodide of potassium, and 4 ounces each of alcohol and glycerine. It will require a long time to reduce the enlargement. It would be all right to breed her after the operation of the purgative.

2. Lump jaw is caused by a fungus taken on the food and gaining the circulation through an abrasion on tongue, lips, cheeks, etc. It causes the formation of a tumor, usually in the neighborhood of the head, but may be in other parts or on an internal organ. In some cases the tumors are loose in the flesh, and in others bone is involved. The jaw bone, either upper or lower, is often involved. It becomes porous and enlarged, and often the bone surrounding the roots of the teeth is involved, when the teeth will become loose and drop out. The animal in these cases cannot masticate, hence fails in condition, and, eventually, dies. In other cases the teeth are not affected. In some cases, matter forms, the abscess bursts, and may or may not heal readily; sometimes heals only to break out again. In some cases there is no eruption.

Miscellaneous.

THREATENED WITH HEAVES.
1. I have a mare eleven years old which has a bad cough, rattles some at nose, I think is threatened with heaves. At times her breathing shows signs of heaves, but she does not wheeze at all; has coughed at different intervals for the past two years. Is there any cure? If not, is there anything to relieve?

2. Does formaldehyde, prepared for treating potatoes, and left standing in a barrel for two or three weeks, lose its strength?
YOUNG FARMER.
Ans.—1. Heaves, once established, cannot be cured, but the symptoms can be relieved to a considerable extent. Be careful not to overload the stomach with bulky food, and give grain in proportion to work done. Dampen all food given with lime water. Water before feeding, and not too liberally. Avoid working shortly after a meal. Raw linseed oil, given daily, in doses of one to three ounces on the feed, is also advised by some.

2. Little loss of strength need be feared if a dilute solution of formaldehyde be left standing in an open vessel, but it would be wiser to cover it closely, or, better still, to mix only as much at one time as is needed then.

HORSE OWNERS! USE GOMBAULT'S CAUSTIC BALSAM.

A safe, speedy and positive cure. The safest, Best BLISTER ever used. Removes all blemishes from Horses. Impossible to produce scar or bluish. Send for descriptive circulars.
THE LAWRENCE-WILLIAMS CO., Toronto, Can.

"SAVE THE HORSE" SPAVIN CURE

REG. TRADE MARK
SHILOH, O., March 1, 1910—I cured a ringbone with one bottle of "Save-the-Horse" C. D. HAMMON, R. D. 2, Jackson, Mich., March 17, 1910—Please send C. O. D. another bottle "Save-the-Horse" I wish to have a bottle on hand. It is the greatest medicine I ever used. A. D. GODFREY, Route 8, a bottle, with legal written guarantee or contract. Send for copy, booklet & letters from business men & trainers on every kind of case. Permanently cures Spavin, Thoroughpins, Ringbones (except low), Curbs, Splints, Capped Hock, Windpuff, Shoe Boil, Injured Tendons & all Lamenesses. No scar or loss of hair. Horse works as usual. Dealers or E.S.P. Sold. TROY CHEMICAL CO.—148 Van Horn St., Toronto, Ont., and Binghamton N. Y.

Don't Have a Blind One

"VISIO"
An Absolute Cure for Moon Blindness (Ophthalmia), Cataract and Conjunctivitis. Shying horses all suffer from diseased eyes. A trial will convince any horse owner that this remedy absolutely cures defects of the eye, irrespective of the length of time the animal has been afflicted. No matter how many doctors have tried and failed, use "VISIO" under our GUARANTEE. Money refunded if under directions it does not cure. \$2.00 per bottle, postpaid on receipt of price. VISIO Remedy Ass'n, Dept. 8, 1833 Wabash Av., Chicago, Ill.

ABSORBINE

will reduce inflamed, swollen joints, Bruises, Soft Bunches, Cure Boils, Fistula or any unhealthy sore quickly; pleasant to use; does not blister under bandage or remove the hair, and you can work the horse. 25¢ per bottle, delivered. Book 7 E free. ABSORBINE, JR., for man-kind, 5¢ and 25¢ per bottle. Reduces Yarrow, Vain, Variocele, Hydrocele, Gout, Wens, Strains, Bruises, stops Pain and Inflammation. Your druggist can supply and give reference. Will tell you more if you write. Manufactured only by W. F. YOUNG, P. O. F., 253 Temple St., Springfield, Mass. Canadian Agents: Lyman's Ltd., Montreal.

NOTICE TO HORSE IMPORTERS

Gerald Powell, Commission Agent and Interpreter, **Ngent Le Rotrou, France**, will meet importers at any port in France or Belgium, and assist them to buy Percherons, Belgians, French Coach horses. All information about shipping, banking and pedigrees. Many years' experience; best references; correspondence solicited.

Peachblow Clydesdales and Ayrshires!

CLYDES—2 four-year registered stallions, one imported. AYRSHIRE—3 very choice bull calves, all registered. All good colors, and from good milking dams. Prices right.
R. T. BROWNLEE, HEMMINGFORD, QUE.

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Court Lodge, Egerton, Kent, England.
Exporters of pedigree live stock of every description. Draft horses a specialty. During the summer months we shall export large numbers of cattle and sheep for breeding and show purposes. We attend all the leading fairs and sales, and can buy cheaper and ship cheaper than can anyone not living on this side. Correspondence invited.

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FOR SALE
Always on hand, stallions, colts, mares and fillies. The champion stallion, "Baron Howes" (13847), was purchased from this stud. Apply:
JOHN R. BEATTIE, Baurch Farm, Annan, Scotland.

For Sale: REGISTERED HACKNEY STALLION, COCK ROBIN.

Three years old; 15 1/2 hands; chestnut; hind feet white. Sire Commodore 2nd, imp. (6695), by Chocolate, Jr. (4185). Dam Ada Adair (181), by Robin Adair 2nd, imp. (3907). For description, terms, etc., address: G. W. CLEMONS, ST. GEORGE, ONT.

Imported Clydesdales

Imported and Canadian-bred Clydesdale mares and fillies and young stallions, of most fashionable breeding, up to a big size, with character and quality. Phone connection. ALEX. F. MCNIVEN, St. Thomas, Ont.

Please Remember to Mention "The Farmer's Advocate" When Writing

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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 cure. Don't experiment with substitutes or imitations. Use it, no matter how old or bad the case or what else you may have tried—your money back if Fleming's Lump Jaw Cure ever fails. Our fair plan of selling, together with exhaustive information on Lump Jaw and its treatment, is given in Fleming's Vest-Pocket Veterinary Adviser. Most complete veterinary book ever printed to be given away. Durable bound, indexed and illustrated. Write us for a free copy.

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Canada's Greatest Show Herd

For sale: 6 young bulls and a number of young females, bred from imported and show stock. None better. Prices right.

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Orangeville, Ont., P.O. & Sta.

Aberdeen-Angus Cattle

Stock all ages, good strains, at reasonable prices. Apply to **ANDREW DINSMORE, "Grape Grange" Farm** Clarksburg, Ont.

Balmedie Polled Angus

and Oxford Down sheep. Offering several exceptionally nice heifers, and a few young bulls. Discriminating buyers will be pleased with my herd. Anything in the herd will be priced. Also ram and ewe lambs. **T. B. Broadfoot, Fergus P. O. and Station.**

FOR SALE: SOME NICE YOUNG Aberdeen-Angus Bulls and some females of all ages. Also a first-class Clydesdale stallion. **J. W. Burt, Coningsby, Ont.**

ABERDEEN - ANGUS

Will sell both sexes; fair prices. Come and see them before buying. **Drumbo station.**

WALTER HALL, Washington, Ont.

"More than five thousand elephants a year go to make our piano keys," remarked the student boarder who had been reading the scientific notes in a patent-medicine almanac.

"For the land's sake!" exclaimed the landlady. "Ain't it wonderful what some animals can be trained to do?"—Chicago News

"Bronchitis."

THE SYMPTOMS ARE

Tightness across the Chest, Sharp Pains and a Difficulty in Breathing, a Secretion of Thick Phlegm, at first white, but later of a greenish or yellowish color coming from the bronchial tubes when coughing, especially the first thing in the morning.

Bronchitis is generally the result of a cold caused by exposure to wet and inclement weather and when neglected will become chronic.

Chronic Bronchitis is one of the most general causes of Consumption. Cure the first symptoms of Bronchitis by the use of Dr. Wood's Norway Pine Syrup

◆◆◆◆◆ Miss Martha Bourget, Little Pabos, Que., writes: "Last spring I was very poorly, had a bad cough, sick headache, could not sleep, and was tired all the time. I consulted two doctors, and both told me I had bronchitis, and advised me to give up teaching. I tried almost everything but none of the medicines gave me any relief. One of my friends advised me to try Dr. Wood's Norway Pine Syrup. I had scarcely taken the first bottle when I began to get better and when I had taken the fourth bottle I felt as well as ever, my cough had left me and I could sleep well."

◆◆◆◆◆ **Bronchitis Cured.** ◆◆◆◆◆

Dr. Wood's is the original Pine Syrup. It is put up in a yellow wrapper, three pine trees the trade mark, and the price 25 cents. There are many imitations of "Dr. Wood's" so be sure you receive the genuine when you ask for it.

Manufactured only by **The T. Milburn Co., Limited, Toronto, Ont.**

QUESTIONS AND ANSWERS. Miscellaneous.

HAY CAPS.

How are cotton hay-caps made, and what size are they necessary to be? H. S.

Ans.—Buy 40-inch common cotton sheeting at any dry-goods store and tear into squares. Do not hem, but simply fasten a 4- to 6-ounce weight to each corner.

SALE TO SON-IN-LAW.

A owns a farm of three lots. She agrees to sell one of these to B, her son-in-law, for a certain amount, and gets the agreement drawn by a neighbor, B to pay most of the price in work if he wishes, but nothing was mentioned in the written agreement as to when payment should be made. There was no house on the lot, so B's wife stays with her mother, A, till B gets his house up, which was not hastened, taking about two years to do so. B's wife helps with the housework while with her mother, although there was no need of her help. Now B claims \$10 per month for the time his wife was there, and charges a high rate of wages for the work done by himself, he not having paid any cash at all. Now he has moved away to work a farm for another man. He rents the aforementioned farm to C, without saying anything about the matter to A, but telling C and others that he has the place paid for, while he has not given more than half the amount agreed upon.

1. What can A do in the matter?
2. She still holds the deed. Can she claim the rent and take possession?
3. Can B claim wages for the time his wife stayed with her mother till he got the house built?

OLD SUBSCRIBER.

Ontario.
Ans.—1. She might propose to bring an action against him for balance of price in order to get the matter disposed of; that is, in the event of the parties being really unable to agree, and, if necessary, she should bring such action.
2. Not without first taking the legal step suggested and continuing the litigation to the appropriate conclusion.
3. No.

Veterinary.

PARTIAL PARALYSIS.

Clydesdale mare could not rise a week before she foaled. I called my veterinarian, and he diagnosed it partial paralysis. I kept her in slings until she foaled. I put her out on grass, but she still is unable to rise without assistance, but can walk after being lifted. The foal is nine days old and doing well. The mare eats well, but is getting thinner. W. H. S.

Ans.—Your veterinarian was correct in his diagnosis, and it would have been wise to have left her in his charge, and treated her according to his instructions. I would advise the administration of 2 drams nux vomica, three times daily. If she can rise with a little assistance, it will be better to leave her on grass, but if she has to be lifted with slings, it will be better to keep her in slings in a box stall. Feed on grass, chopped oats and bran.

GOSSIP.

REID & SON'S SHORTHORN SALE.
Our readers are again reminded that June 15th is the date for the dispersion sale of the well-bred Shorthorn herd of R. H. Reid & Sons, Pine River, Bruce Co., Ont., near Ripley Station, G. T. R., where the morning and noon trains will be met. The herd number twenty-three females and eleven bulls, including the imported two-year-old, Scotch-bred, Best Boy. The females are mostly of Scotch families, the remainder being good milking strains, Scotch, topped, and a number said to be good show material. There will doubtless be a good opportunity afforded for securing good bargains at this sale. The present appears a very favorable time to find a herd, or strengthen an existing one, as best prices are being realized and good cattle scarce and ready to be sold.



How Weather Changes Bring Death to Roofing

The life of Roofing is Saturation and Coating. Yet this vital part is sorely neglected by nearly every roofing maker. The Basis of most Roofing, except Brantford, is wood pulp, jute or cotton-cloth—all short fibered. When it passes through "Saturatory Process" it does not become actually saturated—merely coated. This "Coating" is of refuse and quickly evaporates—wears off—exposing foundation to savage weather. It absorbs water and moisture, and becomes brittle, cracks, rots and finally crumbles. Even when new it softens under heat, sags and dripping. But the Foundation of Brantford Crystal Roofing is a heavy, evenly condensed sheet of long-fibered pure Wool, saturated with asphalt, which is forced into every fibre—not merely dipped. It is heavily coated with time-defying, fire-resisting Rock Crystals, which require no painting. This special Coating cannot evaporate and protects inside. Brantford is indestructible, pliable, tight, water, weather, spark, acid, alkali, smoke, fire-proof.

Brantford Roofing

cannot absorb moisture, freeze and crack in cold weather, or become sticky and lifeless in hot weather. Brantford Crystal Roofing is not the kind all manufacturers care to make, because it costs extra money, yet it costs you no more than short-life Roofing. Roofing Book and Brantford Samples are free from dealer or us. Brantford Asphalt Roofing, Nos. 1, 2, 3. Brantford Rubber Roofing, Nos. 1, 2, 3. Crystal Roofing, one grade (heavy) Mohawk Roofing, one grade only.

BRANTFORD ROOFING COMPANY, LTD., BRANTFORD, CAN.

GREAT DISPERSION SALE OF SHORTHORN CATTLE

Having decided to retire from the breeding of Shorthorn cattle, we will place our entire herd consisting of 1 choice imported bull, 10 Canadian-bred bulls, imported cows with calves at foot (bred again to imported bull), Canadian-bred cows in calf to imported bull, a number of fine heifers mostly in calf. In all **23 FEMALES.** These will be sold, positively without reserve, by public auction on

WEDNESDAY, JUNE 15, 1910

At **CLOVER LEA STOCK FARM.** Sale to commence at 2 o'clock p.m., sharp. These cattle are the best that can be produced among them many animals of show quality and breeding. An opportunity for farmers or young breeders to secure the nucleus of a herd. Terms: Six months' credit on approved joint notes. Six per cent. per annum off for cash. Visitors will be met at Ripley, G. T. R., morning and noon on day of sale. Lunch provided.

John Purvis, Holyrood | Auctioneers. R. H. REID & SONS, Props.,
Thos. Gundy, Goderich | PINE RIVER, ONTARIO.

Scotch Shorthorns

At Toronto Exhibition this fall yearling bulls bred by us won 1st and 3rd in class and junior champion. We also bred the sire of these bulls. The grand champion steer at Guelph was sired by a bull of our breeding. We have 10 young bulls for sale now, bred the same. Write for breeding and prices.

John Miller, Brougham P. O., Ontario.
Claremont Stn., C. P. R., 3 miles.

A. Edward Meyer

P. O. Box 378, Guelph, Ont.,

Breeds **SCOTCH SHORTHORNS** Exclusively. Twelve of the most noted Scotch tribes have representatives in my herd. Herd bulls: Scottish Hero (imp.) 58042 (90065) 295765 A. H. B.; Gloster King 68703 28894 A. H. B. Young stock for sale. Long-distance phone in house.

CHOICE SCOTCH BULLS

FOR SALE. HERD-HEADING QUALITY.

H. SMITH, R. R. 3, Hay, Huron Co., Ont. Farm adjoins Exeter, on G. T. R.

HIGH-CLASS SHORTHORNS

I have on hand young bulls and heifers of high-class show type, pure Scotch and Scotch-topped, sired by that sire of champions, Mildred's Royal. If you want a show bull or heifer, write me.

GEO. GIER, Grand Valley P. O. and station, also Waldemar station.

Spring Valley Shorthorns

Herd headed by Clipper Chief (imp.) 64220 (94673). If you want to get an imported bull, or a good Canadian-bred one to head your herd, be sure and write, or come and see them. Long-distance telephone.

KYLE BROS., AYR P. O., ONT.

SALEM SHORTHORNS

I have generally what you want in choice Shorthorns.

Elora Station, G. T. R. and C. P. R. J. A. WATT, SALEM.

Shorthorns, Clydesdales and Oxford Down Sheep.

Several red bulls, 10 months of age, by Pro-tector, imp.; some with imp. dams; heifers 2 and 3 years of age. Clydesdale mares and fillies. Lincoln and Oxford sheep. All at reasonable prices. Lincoln connection. **McFarlane & Ford, Dutton, Ont.**

JOHN GARDHOUSE & SONS

Always have for sale a number of first-class Shorthorns, Shires and Lincolns, and Drop us a line, or better, come and see for yourself. Weston Stn., G. T. R., P. R. Long-distance phone in house.

HIGHFIELD P. O., ONTARIO.

VALLEY HOME SHORTHORNS AND BERKSHIRES

If you want a first-class Shorthorn bull or heifer, come and see what we have, or if you want a show animal with a choice pedigree, we have them. For description of herd see Name Number of The Farmer's Advocate on last page. **S. J. PEARSON, SON & CO., MEADOWVALE, ONT., P. O. AND STATION, C. P. R.**

Three Shorthorn Bulls for Sale.

Show animals, choice breeding. Prices reasonable. Stock bull, Benachie imp.

Geo. D. Fletcher, Binkham P. O., Elm Stn., G. T. R.

Shorthorns and Leicesters.

For sale: 1 choice-bred young bull, and a number of 1- and 2-year-old heifers. All got by Imp. Sires, and out of grand milking dams, and Leicester rams and ewes of all ages. **W. A. Douglas, Tuscarora, Ont., Caledonia Station.**

Please Mention this Paper.

QUESTIONS AND ANSWERS.
Miscellaneous.

REGISTRATION OF BRAND.

Please tell me if a name of a brand in selling goods must be registered. If so, where, and the cost? I. T.

Ans.—The brand need not be registered unless it is desired to protect it from use or infringement by others. The cost of registration is nominal. Apply to the Department of Agriculture, Ottawa.

A SICK HORSE.

A hires a horse from B for two weeks. A takes the horse home and works it, and after returning it to B it takes sick.

1. Is A responsible?
2. Can B compel A to pay doctor—only a verbal agreement being given at time of hiring? READER.

Ontario.
Ans.—1 and 2. It is possible that there may have been negligence on A's part such as to render him liable to B in damages, including the amount of the veterinary's bill, but it does not appear from the statement of case that he has incurred such liability.

LINE DITCHING.

A and B decides to dig a line ditch. They call on the ditch inspector, who finds that the fence is the line. He lays out the ditch, giving A the first half on his side of fence, and B the lower half on his side of fence. After completing ditch, it is found not to be of sufficient depth to drain the land on each side, owing to a ledge of rock about fifteen feet long in B's ditch, which will require blasting out. Will A be obliged to assist in this work? Quebec.

Ans.—As the matter stands, it would seem that A is not legally bound to assist B. But perhaps he ought to do so under the circumstances. If the parties cannot agree, it might be well for them to call in the inspector again to bring about, in a friendly way, a suitable arrangement of the matter.

HORSE TRADE.

A comes to B's house and asks B to trade horses. B has a colt too keen to work. A questions B about his horse, and asks him if he is good to work. A says before witness that his horse is good to work, and if he is not as good as he says for B to take him back. Now B considers that the horse is not good to work. The horse works at some things all right, at some things he don't. B takes the horse to draw his milk to the factory, and he nearly ditches him twice. B takes the horse back to A, and A refuses to take him back. Can B compel A to take the horse back? B only kept the horse two days. Ontario.

Ans.—We think that B is entitled to return the animal to A, and to get his own horse back, or damages from A in the event of the latter's persisting in his refusal.

GOSSIP.

RECORD OF AYRSHIRE COWS AND HEIFERS.

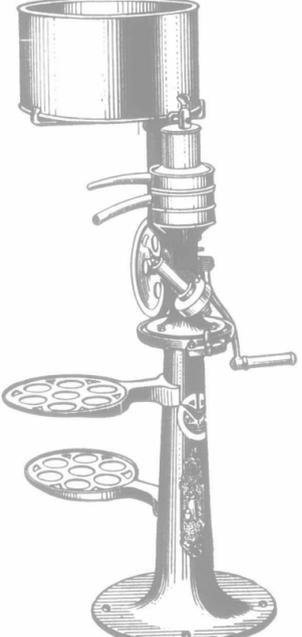
We have received from W. F. Stephen, Secretary Canadian Ayrshire Breeders' Association, the following report of the record-of-performance test for 1909: To May 1st, 1910, 89 cows and heifers have registered in the test; 32 mature cows averaged 10,851 lbs. milk and 401.80 lbs. of fat; 8 four-year-olds averaged 9,570 lbs. milk and 365.80 lbs. fat; 18 three-year-olds averaged 8,161 lbs. of milk and 346.5 lbs. fat; 37 two-year-olds averaged 7,056 lbs. of milk and 297.65 lbs. of fat.

Highest record in mature-cow class, Annie Laurie 2nd—15588— lbs. milk, 45.134; lbs. fat, 598.4. Owner, E. Cohoon, Harrietsville, Ont.

Highest in four-year-old class, Molly—27600— lbs. milk, 11,268; lbs. fat, 372.42. Owner, E. Cohoon.

Highest in three-year-old class, Canadian Princess—20108— lbs. milk, 11,377; lbs. fat, 521.91. Owner, A. S. Turner, Ryekman's Corners, Ont.

Highest in two-year-old class, Jemima of Springbank—27680— lbs. milk, 8,839; lbs. fat, 395.33. Owner, A. S. Turner.



The CAPITAL is the Cream Separator that will "Buy Itself" For You.

As soon as you have read this advertisement, sit down and write a post card for The Capital book—the book that not only tells the story of the easy-running, cream-saving separator, but that tells how you can put The Capital in your own dairy practically without costing you a cent.

The book also tells all about the wonderful Capital gears, about their perfect meshing and non-wearing qualities—how they run in oil—how an automatic clutch stops them running the minute you let go of the handle—and about how they give the light, three-and-a-half-pound bowl 7,000 revolutions a minute.

It tells how and why The Capital skims closer—why The Capital wastes less than one-fifth the cream that other separators waste—and then explains how the machine can be made sweet and clean in two minutes after you are through using it.

This book is full of hard-and-fast facts—separator facts—which every dairyman owes it to himself to know; facts which will prove a revelation to the dairyman who is not familiar with The Capital.

Write for the book to-day—NOW.

THE NATIONAL MFG. CO., LIMITED,
Head Office: Ottawa. Factories: Ottawa and Brockville.
Branch Offices:—Regina, Sask.; Edmonton, Alta.; Moncton, N.B.

275 BURLINGTON SHORTHORNS 275

3 Choice Imported Scotch Shorthorn Bulls—yearlings.
1 Imported 2-year-old Bull, red—an extra sire.
10 Bulls, 9 to 16 months old—all by imported sire.
30 Choice Young Cows and Heifers—mostly bred or have Calves at foot. Long-distance telephone. Farm 1/2 mile from Burlington Jct. Sta., G. T. R. J. F. Mitchell, Burlington, Ont.

SCOTCH SHORTHORNS Eight extra good young bulls, from 10 to 15 months old; 20 choice cows and heifers, forward in calf or with calves at foot. Prices reasonable. Inspection invited. **W. G. PETTIT & SONS, Freeman, Ont.**

Farms close to Burlington Jct., G. T. R.

INVERNESS SHORTHORNS I can supply Shorthorns of all ages, with richest Scotch breeding and high-class individuality. **W. H. BASTERBROOK, Freeman, Ont.**

Maple Leaf Shires, Shorthorns, Hampshire Hogs 1- and 2-yr. old Shire stallions, females from yearling fillies up; Shorthorns, both bulls and heifers; a choice lot of young Hampshire pigs, both sexes, beautifully belted. **PORTER BROS., APPLEBY P.O., BURLINGTON STA. Phone.**

Maple Grange Shorthorns

Am offering an extra choice lot of 1, 2- and 3-year-old heifers, Scotch and Scotch-stopped, Clarets, Non-pareils, etc., sired by Royal Bruce, Imp., and among them are daughters and granddaughters of imp. cows. Young bulls also for sale. **R. J. DOYLE, Owen Sound, Ont.** Phone connection.



GLENGOW Shorthorns

Have two excellent bulls left yet, both about ten months old, and good enough for any herd; also a number of choice heifers, all ages. For particulars write to: **Wm. Smith, Columbus, Ont.**



30 HEIFERS AND 29 BULLS

PRESENT OFFERING:

Bred right, made right and at prices to make you feel right. Come early and get your choice. List of these, with catalogue, will be mailed to those who ask for them.

H. CARGILL & SON, CARGILL, ONT.

SHORTHORNS, Berkshires, Cotswolds.

About 80 Shorthorns on hand, including 9 bulls from 9 to 12 months, also young heifers and cows. No Berkshires or Cotswolds to offer at present. **CHAS. E. BONNYCASTLE, Station and P. O., CAMPBELLFORD, ONT.**



PLEASANT VALLEY SHORTHORNS

Herd headed by Scottish Signet, Scotland's Crown and Waverly, and consisting of females of the leading Scotch families. Correspondence solicited. Inspection invited. **GEO. AMOS & SONS, Moffat, Ontario.** Farm 11 miles east of Guelph on C. P. R.



SHORTHORNS

Willowdale Stock Farm, Lennoxville, Que., has for sale young stock of both sexes, from his noted herd of 1,600-pound cows, descendants of Joy of Morning, Broad Scotch, etc. **J. H. M. PARKER, PROPRIETOR.**

OAK LANE FARM

Clydesdales, Shorthorns and Cotswolds

Young stock for sale—most fashionably bred. **GOODFELLOW BROS., MACVILLE P. O., ONT.** Bolton Station, C. P. R., Carleton Place, G. T. R. Local and long-distance telephones.



CLOVER DELL SHORTHORNS

Always have for sale, young stock of both sexes. Milking strains a specialty. Moderate prices. **L. A. Wakely, Bolton, Ont.** Bolton Junction, on C. P. R., within half mile of farm.

Note the Gale-proof, Closed-end Sidelock and the continuous overlapping and interlocking bottom lock which are found only in the new

"GALT" SHINGLES

This ingenious and yet simple and easy-fitting construction makes a "Galt" Shingle roof absolutely weather-tight. It prevents wind from driving rain or snow up and out of the top end of side lock, as so often happens with ordinary metal shingles. There is not even the smallest opening—this cannot be truthfully claimed for any other steel shingle.

The material is the Best British Galvanized Steel embossed in a bold Gothic Tile pattern—"a thing of beauty and of joy forever." Catalog "B-3" gives complete details of this newest and best shingle.

THIS IS THE SHEET METAL AGE

The Galt Art Metal Co., Ltd., Galt, Ont.

Sales and Distributing Agents: Dunn Bros., Winnipeg and Regina



Shorthorns and Oxford Down Sheep

Young bulls and heifers of richest Scotch breeding and highest quality. Twelve ewe lambs, two aged rams and two ram lambs. None better. Phone connection. **Duncan Brown, Iona P. O., Ont.**

Had Weak Back.

Would Often Lie in Bed For Days, Scarcely Able To Turn Herself.

Mrs. Arch. Schnare, Black Point, N.B., writes:—"For years I was troubled with weak back. Oftentimes I have lain in bed for days, being scarcely able to turn myself, and I have also been a great sufferer while trying to perform my household duties. I had doctors attending me without avail and tried liniments and plasters, but nothing seemed to do me any good. I was about to give up in despair when my husband induced me to try Doan's Kidney Pills, and after using two boxes I am now well and able to do my work. I am positive Doan's Kidney Pills are all that you claim for them, and I would advise all kidney sufferers to give them a fair trial."

DOAN'S KIDNEY PILLS are a purely vegetable medicine, realizing quick, permanent relief, without any after ill effects. A medicine that will absolutely cure Back ache and all forms of Kidney and Bladder Disease.

Price, 50 cents per box, or 3 for \$1.25, at all dealers or The T. Milburn Co., Limited, Toronto, Ont.

In ordering specify "Doan's."

A High Percentage

The combined percentage of Protein and Fat in

BRANTFORD GLUTEN FEED

is 25%

There is no better feed for milking cows. Present price, \$24.00 per ton.

The Brantford Starch Works
LIMITED
BRANTFORD, ONTARIO.

Jerseys and Chester Whites

I am offering some choice young Jersey bulls, sired by Brampton's Blucher, winner of first prize, Toronto and Winnipeg, and from choice, deep-milking cows with good teats. Also Chester White pigs, 3 to 4 months old, both sexes, at special prices.

CHAS. E. ROGERS, Dorchester, Ont.

BRAMPTON Jerseys

CANADA'S GREATEST JERSEY HERD
We are offering for sale one 2-year-old bull and four yearlings, fit for service; also six bull calves; females of all ages. Come and see them or write.

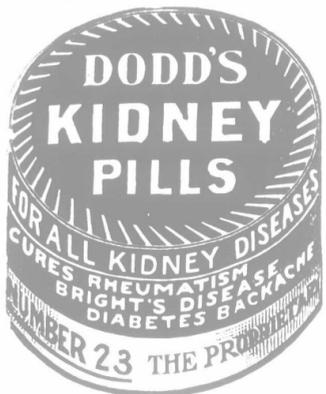
B. H. BULL & SON BRAMPTON, ONT.

High Grove Jerseys and Yorkshires. No better blood in Canada. Present offering: Two young bulls, 12 and 20 months old, respectively; females all ages. Prices and all information on application.

ARTHUR H. TUFTS, P.O. Box 111, Tweed, Ont.

Pretty Miss Jones—As I play an old lady in this piece, I shall have to have wrinkles painted round my eyes, cheeks and mouth.

Brown—Ah, they will be lines cast in pleasant places.



QUESTIONS AND ANSWERS. Miscellaneous.

LINE FENCING.

A bought a farm a few years ago adjoining a village. B owns a three-acre lot extending forty rods back, which he bought off the lot A now owns over 20 years ago. B put up half of post and board fence—and other half was board fence also, but not so substantial. Now this latter part is down, and B claims A has a right to put it up. Has A any right to fence or repair any part of fence around B's lot?

CONSTANT READER.

Ontario.

Ans.—Yes; a just proportion of the boundary fence. If they cannot agree, the fence-viewers should be asked to decide the case.

ROARS.

We have a heavy horse rising five years old, had distemper last fall, and, at times since, when excited or drawing heavy, has difficulty in getting his wind. It appears like the roars. What can we do for him, and how should we care for him?

A. W.

Ans.—"Roars" sometimes results as a sequel to distemper. It is due to a lessening of the muscles on the left side of the larynx. Little can be done for this trouble. In some cases, blistering the throat gives some relief, and the administration of one dram iodide of potash, night and morning, every alternate week, sometimes helps, but treatment in many cases is unsuccessful.

MANURING FOR WHEAT.

Have a piece of sod which I intend to plow about the latter part of June for fall wheat. Would you advise putting on manure before plowing, or plow, and then top dress and work until time to sow wheat?

D. B.

Ans.—The proper answer to this question depends somewhat on the nature of the soil. If the subsoil is fairly retentive, manure might, with prudence, be applied first, and turned under with a somewhat shallow furrow, but if there is a leachy subsoil, then it had better be put on as a top dressing and thoroughly incorporated with the soil by surface working. The latter method would be a safe one to adopt, whatever the nature of the soil might be.

If the plowing were done fairly deep, and followed by surface cultivation, a very good plan would be to apply manure about a month before wheat is to be sown, plow or gang plow under lightly, and continue surface working so as to germinate and destroy any weed seeds which might be present in manure.

MATERIAL FOR SILO AND STABLE FLOOR.

1. How much material would it take to build a cement silo (round) 13 feet in diameter and 40 feet high, eight feet to be below the surface of the ground?
2. How thick should wall be (a) below the ground, (b) above ground?
3. How much per foot in height do contractors usually charge, owner supplying everything but cement?
4. How much material would it take to lay a floor in a barn 50 x 85—ordinary thickness?

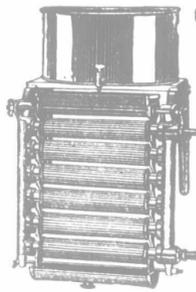
H. J. S.

Ans.—1. The walls of cement silos are now made much thinner than formerly. Very satisfactory silos are now built with a six-inch wall from top to bottom. Some prefer a wall of say, 8 inches thick at the bottom, tapering to 4 or 5 at the top. Allowing an average thickness of 7 inches for the silo in question, and concrete mixed 1 to 7, about 10 cords of gravel and 15 barrels of cement would be needed.

2. The foundation footing should be broad. Above that to surface of ground, 8 inches would be thick enough. From that upwards, it might taper to 5 inches thick at the top.

3. Contractors usually charge from four to five dollars per foot for building silo and supplying cement.

4. Three inches on the average would be a fair thickness for cement floor, and, on that basis, with concrete mixed 1 to 6, about 10 cords of gravel and 55 barrels of cement would be required. Many floors are laid four inches thick, and, in such case, a correspondingly greater amount of material is needed.



The Secret of Pure Sweet Milk

You dairy-farmers can't afford to ship impure, germ-laden milk into the towns and cities. Our medical authorities are urging the Government to penalize offending dairymen very severely—don't you run any risks. If you pass all your milk through the Root Cooler-Aerator immediately it leaves the cow, you can guarantee it pure and sweet and get a bigger price for it per gallon. The

Root SANITARY MILK Cooler-Aerator

will keep the milk sweet for 48 hours because it kills the animal heat quickly and cools the milk to the same temperature as cold running water. The water is admitted at the bottom, flows through the filter in tube, then from the water column into the second tube and so on until it reaches the top of the cooler. The milk flows down then slowly, reaching the filtering pan thoroughly cooled and aerated. Cylinders are made of heavy copper, heavily coated with pure tin and guaranteed to stand heavy water pressure. Perfectly simple to operate—no complicated parts—a child can easily clean the whole machine in 5 minutes. Make no mistake—will cool from 40° to 70° without a loss. Write instantly for catalogue and prices—every dairyman should have a Root Cooler—it's a big money maker. Address: W. A. Drummond & Co., 175 King St. East, Toronto



Centre and Hillview HOLSTEINS

140 head, 45 females in R.O.M. Herd headed by Brookbank Butter Baron, Bonheur Stetman and Sir Sadie Cornucopia Clothilde. The average of dam, sire's dam and granddam is: milk in 7 days, 662.85 lbs.; butter in 7 days, 30.58 lbs. We have bulls born March, '09, to two weeks old for sale, from Record-of-Merit dams. Long-distance telephone. P. D. Ede, Oxford Centre, Ont., Woodstock Sta.

Fairmount Holsteins.

Must sell 35 head before fall, as I have sold one of my farms. Herd headed by Aaggie Grace Cornucopia Lad, whose dams for four generations have records that average 21.30 pounds. C. R. Gies, Heidelberg P.O., St. Jacob's Sta.

Glenwood Stock Farm Holsteins and Yorkshires

Holsteins all sold out. Have a few young Yorkshire sows, about 2 months old, for sale cheap. True to type and first-class. Bred from imported stock. Thos. B. Carlaw & Son, Warkworth P.O., Ont., Campbellford Station.

Ridgedale Holsteins

I have left three bull calves that will be priced right for quick sale; their dams are heavy producers, and their sire was bred right. R. W. WALKER, Utica, Ont. Phone connection.

When Writing Mention The Advocate

LAKEVIEW HOLSTEINS!

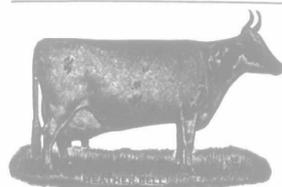
Bull calves sired by Count Hengerveld Fayne de Kol, whose sire is the sire of the world's champion milk cow, and whose dam is the dam of the world's champion butter cow. These calves are from A. R. O. cows with records up to 24 lbs. butter in 7 days. Also a few females for sale.

E. F. OSLER, Bronte, Ont.

Holstein - Friesians

FAIRVIEW FARM offers young bulls, sired by Pontiac Korndyke and Rag Apple Korndyke, without question the two greatest Korndyke bulls in the world, and out of cows with large A. R. O. records and testing 4 fat. Come and see them or write.

E. H. DOLLAR, Heuvelton, N. Y., Near Prescott.



BURNSIDE AYRSHIRES!

Fresh importation just landed in quarantine of 60 head. I have the choicest lot of 12 young bulls I have ever imported. From the best herds in Scotland, such as Auchincraig, Osborne, Netherhall, Bargenoch, Barr of Hobsland, Mitchell of Laskhergus. All fit for service. A number of cows, 2-year-olds, 2-year-olds, and 20 choice yearling heifers. All are for sale.

R. R. Ness, Howick, Que.

ISALEIGH GRANGE AYRSHIRES!

Our herd were all selected on their ability to produce a heavy yield of milk. We have a number of 40, 45 and 50 lb. cows, imported and Canadian-bred. From them are young bulls and heifers for sale. None better. JAMES BODEN, DANVILLE, QUEBEC, ISALEIGH GRANGE FARM.

Shannon Bank Ayrshires and Yorkshires

An now offering young bulls and heifer, true to type and high in quality. Young Yorkshires of both sexes. W. H. Tran & Son, Locust Hill P.O. & Sta., Ont., Campbellford Sta.

Ayrshires from a Prizewinning Herd

Have some nice bull and heifer calves for sale at reasonable prices. For particulars, write to WM. STEWART & SON, Menie P.O., Ont.

Ayrshires and Yorkshires!

We still have a few choice individuals of almost any age on hand in Ayrshires, and are always ready to price any. Other breeders in this section. Bull calves from Record-of-Performance cows. Also young Yorkshires on hand. Long-distance phone.

ALEX. HUME & CO., MENIE, ONT.

Ayrshires

Four young bulls, all bred on farms, out of famous dams; fashionable in color, as well as in breeding. Will be sold worth the money. Females all ages.

N. DYMENT, Clappison's Corners, Ont.

HILLCREST AYRSHIRES.

Bred for production and large teats. Record of Performance work a specialty. Fifty head to select from. Prices right.

FRANK HARRIS, Mount Eglon, Ont.

Stonehouse Ayrshires

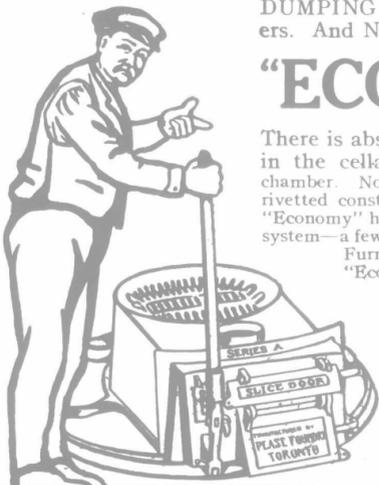
Head to select from. All imported or out of imported sire and dam. For sale: Females of all ages. An now looking for bull calves. Hector Gordon, Howick, Quebec.



YOU DONT HAVE TO STOOP TO SHAKE THIS GRATE

This is an exclusive feature of the "Economy" Furnace

Consider this point for a moment. Isn't this arrangement much better than the old-fashioned back-breaking style? Simply work lever back and forth a few times, the ROCKING AND DUMPING GRATE clears itself of all ashes and breaks up any clinkers. And NO DUST—that is another important feature of the Pease



"ECONOMY" FURNACE

There is absolutely NO DIRT when you shake the "Economy." None in the cellar—the large dust flue carries it up to the combustion chamber. None in the outer shell of air because of the cup-joints and the steel-riveted construction of the dome. There's just pure, fresh, warm air when an "Economy" heats the home. This is a part of the perfectly arranged Pease heating system—a few of many reasons why you should see and investigate the "Economy" Furnace before investing in any heating system. I will give you more "Economy" features in my next talk. Watch for it. *Wright Furnace.*

Send to-day for our free booklet—"The Question of Heating."

PEASE FOUNDRY COMPANY

LIMITED

Toronto - Winnipeg

NOTE—We manufacture exclusively Warm Air, Hot Water, Steam and Combination Heating Systems.

2334



It Satisfies

A paint that looks and wears well is bound to attract the attention and favorable comments of your next door neighbor—just as paint that fades, peels, and chalks off in a few months is bound to attract their attention and condemnation as well.

Martin-Senour Paint 100% Pure

Meets every requirement of a good paint—it shows its quality in the can and as it flows from the brush, and months afterward there it shines—a testimonial to the honesty and skill of its makers.

The luckless house owner who depends on the fickle protection afforded his property, through the use of a cheap adulterated paint, will soon find himself bluffed and vanquished.

A house protected by Martin-Senour Paint can enjoy the thousand shrieking voices of the wind, while you listen from the vantage ground of your well shielded home.

A Good Pure Paint, while defending your home, renders you far greater service—it adds greater comfort, health, protection, cleanliness; besides it saves your buildings from emptiness and decay.

If your dealer cannot supply you, notify us and we will gladly direct you to where our paints are to be had.

Decline All Substitutes

Write for illustrated booklet, "Home Beautiful," and interesting color card. Free for the asking.

The Martin-Senour Co., (Limited) Montreal

Pioneers Pure Paint



When Writing Please Mention The Advocate.

GOSSIP.

Volume 17, of the Clydesdale Studbook of Canada has recently been issued, and a copy received at this office. It contains 586 pages, and the pedigrees of stallions numbering from 8000 to 8849, and of mares numbering from 14800 to 16599, a total of 1,799; also the 1909 list of prizewinning Clydesdales at the Canadian National (Toronto), the Winnipeg Industrial, the Ontario Horse-breeders' (West Toronto), and Eastern Ontario (Ottawa) Exhibitions. Also excellent portraits of past and present officers and directors of the Society, and of champion Clydesdales.

ENFORCEMENT OF TWENTY-EIGHT-HOUR LAW.

United States Department of Agriculture to Bring Test Cases as to Space to be Allowed Live Stock in Cars.

A controversy has arisen between some of the railroads of the United States and the larger live-stock shippers in regard to the space in the cars which must be afforded animals in transit from one State to another in order to make unloading unnecessary, and still comply with the twenty-eight-hour law. This law provides that when the animals are carried in cars "in which they can and do have proper food, water, space, and opportunity to rest," they shall not be required to be unloaded. The Department of Agriculture has been appealed to by both railroads and shippers, and the position of the Department is tentatively announced as follows:

If cars are not loaded beyond the minimum weight fixed by the tariffs, the Department will not for the present, raise the question as to whether sufficient space is provided for the animals to rest; but railroads which load beyond the minimum and do not unload for rest, will have to take their chances of prosecution in the courts.

It is the intention of the Department to institute a number of test cases, and secure rulings from the Federal Courts as to what space must be afforded. It is claimed by the Department that this is the only course open, since no power is given the Secretary of Agriculture by the law to make rulings and regulations regarding space to be afforded in cars.

In all cases where live stock is not unloaded en route "into properly-equipped pens for rest, water, and feeding," the cars must be provided with facilities for feeding and watering in transit, and live stock must, when so fed and watered, receive proper feed and water.

TRADE TOPIC.

HOUSE PLANTS AND FURNACE HEAT.

House plants in winter help so much toward that "comfy" and cosy atmosphere in the home, that it is a pity they are not more generally used.

The reason we see so little of winter plants is, doubtless, because of the poor success which has attended the efforts of people to keep them green and flourishing during a winter season.

One of the chief causes of their failures in this direction has been simply the lack of humidity in the heated air in the house, and it is just another instance of nature trying to show us that something is wrong.

Low humidity is prejudicial to health, and you may have felt its effects without knowing the cause. The thermometer in the room may show a comfortable temperature, and yet you have a feeling of oppression, and your skin seems parched and dry. The moisture has been practically dried out of the air, but the plants cannot get outside to get a breath of fresh air as you can, and they droop and die.

The furnace has a waterpan, but it is, doubtless, dry and neglected, but even if it were kept supplied, it is not located so as to provide a uniform distribution of moisture, even if it were large enough to supply the required volume. The test you can do is to refill it regularly and often.

A waterpan completely circling the furnace, and inside the casing, is a new invention which promises to make furnace heated homes a more healthy for both human and plant life, as it guarantees an abundant and uniform supply of moisture to the heated room.

The Full Percentage of Cream

Getting the full percentage of cream from milk depends as much upon the oil used to lubricate the separator as upon the separator itself. Gummy oil will cut the fine bearings of your machine, spoil its balance and waste good cream in the skim-milk pail.



STANDARD Hand Separator Oil

never gums, never rusts, never corrodes. It feeds freely into the closest bearings and insures the perfect lubrication that is essential to the free spinning of the bowl and the complete separation of cream from milk. It lessens the driving effort and lengthens the life of your separator.

One gallon cans. All dealers. Or write to

The Imperial Oil Company, Limited

Ontario Agents: The Queen City Oil Co., Ltd.

The only Shingles guaranteed lightning-proof

The farmers of Canada each year lose thousands of dollars by lightning. In future they, or you, need not lose another cent from this cause. Simply roof your buildings with PRESTON Safe-Lock Shingles. They are guaranteed proof against lightning.

Our Lightning Guarantee is legal. Send for a copy. Let your lawyer read it. He will tell you it fully protects you against loss by lightning.

We don't charge you a cent for this Lightning Guarantee. Yet you couldn't even buy a lightning guarantee from the makers of wooden shingles or prepared roofing.

PRESTON SAFE-LOCK SHINGLES

You don't get a Lightning Guarantee with any other roofing. Neither do you get shingles galvanized according to British Government Specifications. Nor Shingles SAFE-LOCKED on all FOUR sides.

Send for the new and improved edition of "Truth About Roofing." It gives roofing facts you would be willing to pay for. We will send you a copy free provided you fill in and send the coupon promptly. Branch Office and Factory at Montreal, Que.

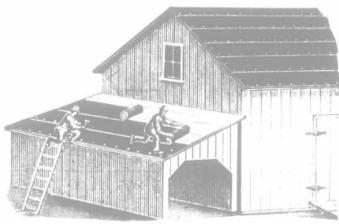
Queen Street Factory Please send your booklet, "Truth About Roofing." I am interested in roofing and would like complete information about PRESTON Shingles.

Name _____
P.O. Address _____
County _____ Prov. _____

Metal Shingle & Siding Co. Limited, Preston, Ont.

Mica Roofing

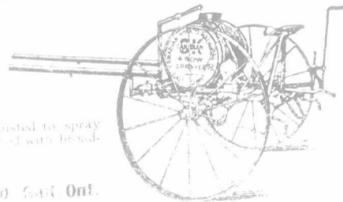
For steep or flat roofs, waterproof, fire-proof, easily laid; cheaper than other roofing. Send stamp for sample, and mention this paper.



HAMILTON MICA ROOFING COMPANY,
101 REBECCA STREET, HAMILTON, CANADA.

O.K. CANADIAN 4-ROW SPRAYER

Sprays 4 rows while you drive. No hand-spraying to do. Wheels and nozzles adjustable for wide and narrow rows. Can be adjusted to spray 6 inches to 2 1/2 feet high. Can be mounted with broad-vineyard and tree spraying attachments.



Write for particulars: Canadian Potato Machinery Co., Ltd. 5441 Ont.

BOOK REVIEW.

"HOW TO KEEP BEES FOR PROFIT." This attractive title introduces a new book by D. Everett Lyon, Ph. D., which has recently been published by the Macmillan Company. The following from the introduction gives the aim of the book: "It is the purpose of this volume to give the reader an insight into the life-history of the bee family, and point out the various methods by which they may be made of increased interest and profit."

There are twenty-one well-arranged chapters, and the work is tastefully illustrated with photographs, many of which are of practical value. The style is very readable, and the binding and general finish are of the usual excellent order one gets from the Macmillan Company. The price of the book is \$1.50, at which it may be ordered through this office, plus eleven cents extra for postage, if mailed.

The subject-matter is well arranged, and much of it keeps closely to well-accepted facts of modern beekeeping; but it is much to be regretted that so many serious errors have crept in, errors which we must suppose are due to the lack of a practical knowledge of bees. For example, on page 92, the beginner is advised that: "If a swarm should come out with a clipped queen, it may cluster on a nearby tree, while the queen, in her inability to fly, will be found hopping about in the grass in her endeavor to join the swarm, and can be picked up with the bare fingers, as she will not sting, and removed to the house. A new hive being placed on the stand occupied by the one from which the swarm emerged, and the old swarm, having returned and entered the new hive, the queen can be thrown in at the entrance; thus the swarm is hived without the owner having to handle it at all." Imagine carrying out these instructions in detail! What is the queen doing loose in the house while the owner is fixing the new hive? Are the children playing with her, also with their "bare fingers," because she is not able to defend herself? And what about the bees of the swarm rushing in and out of the new hive and back to the tree, because they can find neither their home nor their mother? And the poor queen can hardly be expected to accept quietly the indignity of being "thrown in at the entrance" after being denied the decent privacy of the usual small wire-cloth cage! In another place, the author correctly informs the reader that to handle a queen with the fingers will often cause her to be "balled" when returned to her own bees. When did 2 + 2 cease to be 4? It would be impossible in brief space to mention all the erroneous impressions which the beginner is sure to form as he reads the book. He is advised to pound on the lid of a hive when opening it to find the queen, when we know that this will make her hide. He is told to hive shaken swarms on starters, and melt up the combs of the parent hive as soon as the brood hatches. While this, in a proper setting, is half true, yet without further explanation the beginner will put his colonies into winter quarters with too few worker bees, and too much drone comb in the brood chamber. This dark thread of inaccuracy runs through all the chapters, and seriously impairs the value of an otherwise useful and attractive little volume.

M. P.

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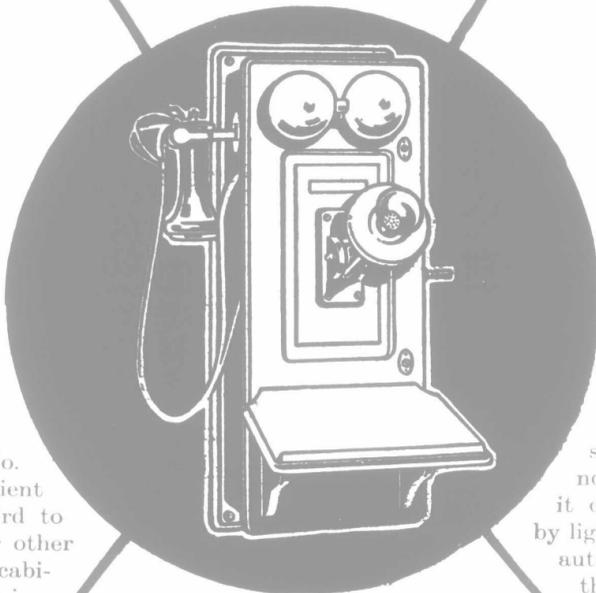
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