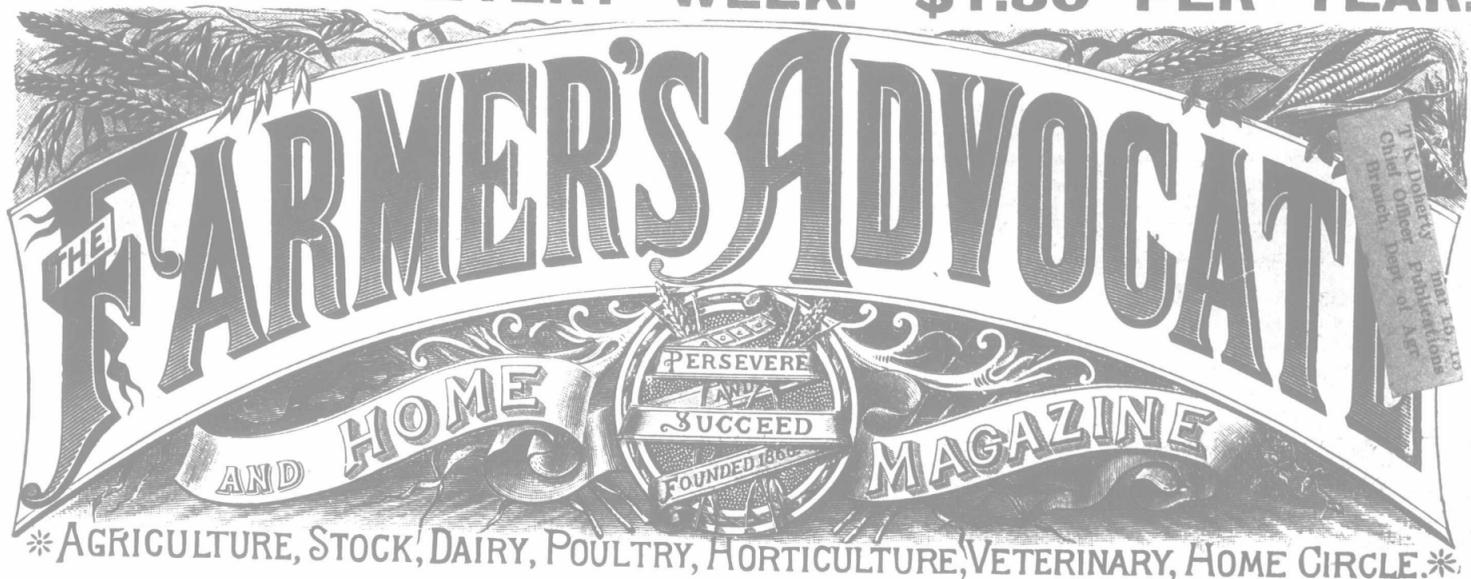


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* AGRICULTURE, STOCK, DAIRY, POULTRY, HORTICULTURE, VETERINARY, HOME CIRCLE.*

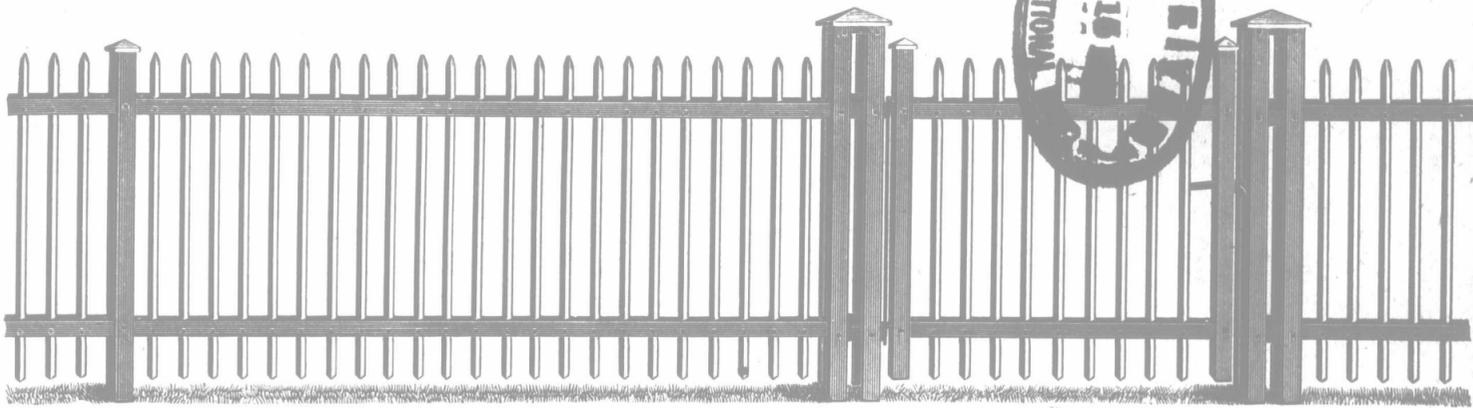
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VOL. XLVII.

LONDON, ONTARIO, JULY 11, 1912.

No. 1033

FROST ANGLE STEEL FENCE



(Patent applied for)

STRONG, GOOD ^{3/12}LOOKING AND ECONOMICAL

For enclosing Farm Lawns, School Grounds, Church Yards, Cemeteries and Public Buildings.

An Ornamental Fence of massive appearance, at a much lower cost than ordinary iron fence with round or square pickets.

Angle steel material is used throughout the construction of this fence. The horizontal bars are $2 \times 2 \times \frac{1}{8}$ inches thick, and pickets $\frac{3}{4} \times \frac{3}{4} \times \frac{1}{8}$ inch thick, spaced three inches from centre of pickets. Steel in angle shape has double the strength of the same weight of stock in ordinary round or square bars. This saving in weight, without sacrificing in stiffness or strength, makes it possible for us to deliver and construct a most attractive ornamental, all-metal fence at a lower cost than the cheapest and lightest weight iron fence made from ordinary stock.

Line Posts are 2 inches square, formed by joining two angle-bars of the same size and weight as horizontal rails. End, corner and gate posts are 6 inches square, and are made from four angle-bars of the same size. All posts have cast caps.

Made in heights of 36, 42, 48, 54 and 60 inches.

Gates are made to correspond in appearance and design.

CONSTRUCTION

Picket and Rail Section

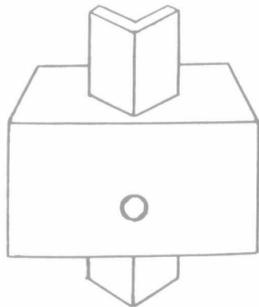
From the front or face view the construction of the fence seems to be of solid square iron bars.

The fence is as strong and durable as it looks.

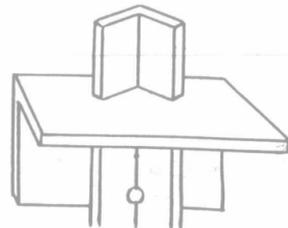
Sections of this fence are as solid as if made from one piece of metal.

This rear view section shows the angle construction and the "V" shaped hole in the rails through which the pickets are driven and held in position by a strong rivet through the other wing of the horizontal.

The "V" hole in the rail is not large enough to weaken the stock.



Front View



Rear View

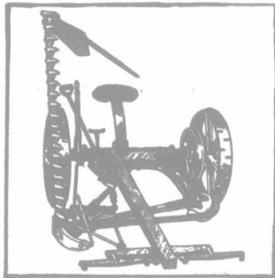
No other exterior improvement can so add to the appearance, or will show up to quite as good advantage as a good metal fence. Let us have a rough sketch of your lawn, showing position that the fence will occupy, and the location of gates, and we will tell you the exact cost for the fence delivered and constructed, posts set in concrete, and all complete. This work to be done by our nearest dealer.

Other Frost products are: Frost Woven Fence, made from wire which we produce and galvanize in our own factory here; Metal Gates, all galvanized, and fence supplies of every description.

FROST WIRE FENCE COMPANY, LTD., Hamilton, Can.

Dain Hay Tools Cut the Cost of Hay-making by One-half.

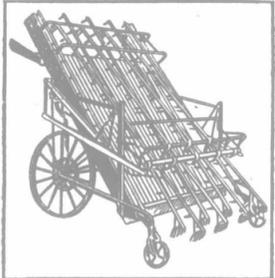
THERE'S money in Hay—if it does not cost too much to make it. The Dain Implements cut the cost of Hay-making to the lowest possible margin, because they are perfect in every detail. More than that they are built to endure—the farmers owning them declare that they are *practically indestructible*. It will *pay you well* to know all there is to know about *Dain Hay-making Helpers* before investing a dollar in any hay-making implement.



Here's the *Dain Vertical Lift Mower*—a machine that you couldn't smash under any sort of service. Before leaving our factories every *Dain mower is subjected to a tremendous test*—a test that would make a scrap iron of any ordinary implement. There's *no lost motion* about the Dain—the moment the horses move the knife begins cutting. The machine is built with surplus strength in every part, and so perfectly balanced that the draft is easy. Yet, we so build the Dain Mower that—in the rare event of an accident—an inexpensive part effects prompt repairs.

The *Dain All Steel Side Delivery Rake* is in a class by itself. Its triple set of teeth, turning slowly, put the hay in shape for curing without injuring leaves or stalks. It delivers the hay gently into a loose, fluffy, continuous windrow, so that the air and sun penetrate—it cures quickly and retains its full nutriment. Simply constructed and almost *break-proof*.

The *Dain Steel Frame Roller Bearing Loader* has always been considered the best and easiest loading machine on the market. Besides the many exclusive features which have made the Dain famous our new *Loader is equipped with four sets of Roller Bearings, which decrease the draft to a minimum*. But, get the details, they'll please you, and it will pay you to have them. Study the *Dain Line* before you outfit yourself with hay-making implements. You'll have better machinery and more money in the bank if you do so. Dain Implements are built to endure and to reduce friction—they are specially designed for simplicity, strength and money-making service.



N. B.—Write to-day and ask us to forward you complete details of any or all of the DAIN money-saving and money-making implements. Besides the implements mentioned, we manufacture the Success Roller Bearing Manure Spreader, Hay Presses, Ensilage Cutters, etc.; and

"EVERY DAIN IS THE LEADER OF ITS KIND."

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Winnipeg, Edmonton, Calgary, Lethbridge, Saskatoon, Regina.

THE Stratford Extension Ladder
IT IS
strong, serviceable, light, easily operated and durable, with wire-trussed reinforced sides.
If interested, write for booklet H, which tells all about this and other lines of ladders.
The Stratford Mfg. Co., Limited
STRATFORD, ONTARIO

BUILT low, especially for farm use, a T-A Handy Farm Wagon **saves much hard work**. It is easier to load and unload, and will haul bigger loads without tiring horses, more than a small load.

T-A Wide-Tire Steel Wheels & Handy Farm Wagons
T-A Wide-Tire Steel Wheels are lighter, stronger, cheaper, and better in every way than ordinary wooden wheels. **Make your old wagons new** by fitting them up with these superb wheels.
Our free booklet (which, please ask for), tells how you can make farm work easier and more profitable.
Tudhope-Anderson Co'y, Ltd.
Orillia, Ontario

SYNOPSIS OF CANADIAN NORTHWEST LAND REGULATIONS.
ANY PERSON who is the sole head of a family, or any male over 18 years old, may homestead a quarter section of available Dominion land in Manitoba, Saskatchewan or Alberta. The applicant must appear in person at the Dominion Lands Agency or Sub-agency of the district. Entry by proxy may be made at any agency, on certain conditions, by father, mother, son, daughter, brother or sister of intending homesteader.
Duties—Six months' residence upon and cultivation of the land in each of three years. A homesteader may live within nine miles of his homestead on a farm of at least 80 acres solely owned and occupied by him or by his father, mother, son, daughter, brother or sister.
In certain districts a homesteader in good standing may pre-empt a quarter-section alongside his homestead. Price, \$3.00 per acre.
Duties—Must reside upon the homestead or pre-emption six months in each of six years from date of homestead entry (including the time required to earn homestead patent) and cultivate fifty acres extra.
A homesteader who has exhausted his homestead right and cannot obtain a pre-emption may enter for a purchased homestead in certain districts. Price, \$3.00 per acre. Duties.—Must reside six months in each of three years, cultivate fifty acres and erect a house worth \$300.00.
W. W. CORY,
Deputy of the Minister of the Interior.
N.B.—Unauthorized publication of this advertisement will not be paid for.

"Go North Young Man!"
WHY?
Because there are millions of acres of agricultural land in Northern Ontario in some cases free, and in others at 50 cents per acre, excelling in richness any other part of Canada, blessing and waiting to bless the strong, willing settler, especially the man of some capital.
For information as to terms, homestead regulations, special railway rates, etc., write to
H. A. Macdonnell
Director of Colonization
TORONTO, ONTARIO
HON. JAS. S. DUFF,
Minister of Agriculture

FARMS FOR SALE
Choice stock, grain and fruit farms for sale. We specialize in high-class properties, and aim at offering good value only. We have a special department devoted to listing and selling Ontario farms. Write for list.
UNION TRUST CO., LTD.
Real-estate Department
201 Temple Building, Toronto

A FARMER'S POWER HOUSE ON WHEELS
Complete with Line Shaft, Truck, Pump Jack and interchangeable Pulleys capable of 60 changes of speed.
An engine that carries its own line shaft, pulleys, belt tightener and hangers. The Gilson 60 Speed Engine is a complete power plant in itself. You can haul engine anywhere, attach it and get just the speed desired—the only engine of its kind made. Gives 100 per cent service. Runs the whole farm. Goes like sixty—sells like sixty—has sixty speeds. 1 1/2 H. P., also 3 H. P. and 6 H. P. Engines up to 27 H. P.
WRITE TODAY. Write at once for illustrated, descriptive literature with full information. Agents wanted.
GILSON MFG. CO., Ltd. 61 York Street
Guelf, Ontario
"60 SPEED" ENGINE

Engine belted to Gray Pump Jack ready for business. The handiest, easiest running and most economical pumper in the world.
\$33 Hot Weather Special!
Wonderful Pumping Engine
Pays for itself in six months. No more "back-aching" pumping jobs. Great economy—cent an hour for fuel—uses kerosene or gasoline. Use it for pumping—spraying and running all the small machinery. Big stock—immediate shipments—no delay.
12 Sizes to choose from. There is a Gray engine for every job—all guaranteed. Also complete electric light plants for country homes. Ask for Electric Light catalog.
30 Days Trial. Try any Gray engine for 30 days—give it severe tests for power and economy—if not O.K. ship it back—we pay the freight. Write for special folder "30-B" about special Hot Weather engine proposition.
GRAY MOTOR COMPANY, 7335 U. S. Motors Bldg., Detroit, Mich.

Please Mention this Paper.

London Automatic Concrete Mixer
does any kind of mixing automatically, measures and mixes. If you use concrete you better write us for price of this machine. We have the largest line of concrete machinery of any firm in the world. Tell us your requirements. **London Concrete Machinery Co., Dept. B., London, Ont.**
INVENTIONS Thoroughly protected in all countries. EGERTON R. CASE, Registered Patent Attorney, DEPT. E, TEMPLE BUILDING, TORONTO. Booklet on Patents and Drawing Sheet on request.

Why should I use Canada Cement?



NO FARMER who has used Canada Cement asks that question, because his first trial answered it to his complete satisfaction. Yet it is only natural that a farmer who has never used concrete—perhaps yourself—should require convincing reasons before deciding to use it himself.

If we knew where you lived, and knew your name and the names of your neighbors, we could tell you of many men in your own locality who would be glad to tell why they are using Canada Cement. Since that is impossible, this advertisement will try to give you an answer to your question.

“What is Concrete?”

CONCRETE is an artificial stone. It is a mixture of cement, sand and stone, or of cement and gravel, with water. The proportions of the various materials vary according to the purpose for which the

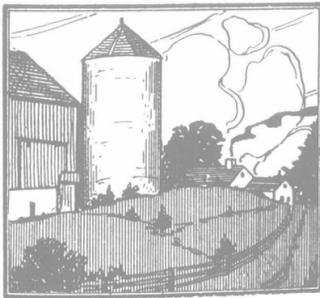


THE mixing and placing of concrete is simple, and is easily learned. No elaborate tools are needed.

concrete is to be used. This mixture hardens into an artificial stone. This hardening process is rapid at first, and in a few days the mixture is as hard as rock. After that, time and weather, instead of making it crumble, actually make it stronger.

Since stone, sand and gravel may be found on nearly every farm, the only cash outlay is that required for cement. Cement forms only a small part of finished concrete, and this expense is relatively small.

Concrete may be mixed and placed at any season of the year (in extremely cold weather certain precautions must be observed) by your-



CONCRETE is the ideal material for barns and silos. Being fire, wind and weather proof, it protects the contents perfectly.

“What Can I Use Concrete For?”

CONCRETE can be used for all kinds of improvements. By having a small supply of cement on hand you will be able to turn many an otherwise idle afternoon to good account by putting a new step on the porch, or making a few fence posts,

or repairing an old foundation wall. It is a mistake to suppose that you have to be ready for a new barn or silo to be interested in concrete. Besides, it is just as well to become familiar with the use of concrete on small jobs, for then you will be better able to handle big jobs later on.

First cost is last cost when you build of concrete. Concrete improvements never need to be repaired. They are there to stay, and every dollar put into them adds several dollars to the cash value of your farm, and in many cases improvements of this everlasting material are actually cheaper in first cost than if they were built of wood. The cost of lumber is constantly increasing, and it will not be many years before its cost will be prohibitive.

YOU should use concrete, because by so doing you can make your farm more attractive, more convenient, more profitable and more valuable.



OUR mills are located all over Canada, so that no matter where you live you can get Canada Cement without paying high prices caused by long freight hauls.

“Why Should I Use Canada Cement?”

WE were the first cement company to investigate the farmer's needs, and to point out to the farmers of Canada how they could save money by using concrete. We conducted an exhaustive investigation into the subject, learned the difficulties they were likely to encounter, and how to overcome them, and published a book, “What the Farmer Can Do With Concrete,” containing all the information that the farmer could need.

We have made a special effort to give the farmers of Canada not only the best cement that can be

made, but also every possible assistance in the use of concrete. Our free Farmers' Information Bureau is at the service of every farmer in Canada. All questions concerning the use of concrete are answered at once, and the Bureau is always glad to receive suggestions from farmers who have discovered new uses for cement.

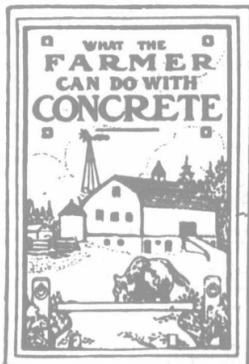
Last year we conducted a \$3,600 Cash Prize Contest, in which farmers in every Province participated. A second contest, in which three times as many prizes are offered, has been announced for this year.

You can easily see why a company that is devoting this much attention to the farmers' needs is in better position to give you—a farmer—satisfactory service. Canada Cement will always give you satisfactory results. Every bag and barrel must undergo the most rigid inspection before leaving the factory.



THIS sign hangs in front of nearly all our dealers' stores. Let it guide you to the place where the best cement is sold.

YOU should use “CANADA” Cement because its makers offer you not only the best cement made, but also careful, conscientious, personal assistance in making use of it.



THIS book of 160 pages, handsomely bound and illustrated with photographs, was the first, and is the best work describing the farmers' uses for concrete ever published. See free offer on this page.

IF you haven't received a copy of “What the Farmer Can Do With Concrete,” write for it at once. It will be sent absolutely free, without obligating you in any way. Use a post card or clip out the coupon. We will also send particulars of the 1912 Cash Prize Contest. Address:

CANADA CEMENT COMPANY, LTD.
550 Herald Building, Montreal

Please send me, free, your book: “What the Farmer Can Do With Concrete,” and full particulars of the 1912 Cash Prize Contest.

My name is.....

Address.....

**Canada
Cement Company**
LIMITED

Farmers' Information Bureau
550 Herald Bldg. MONTREAL, QUE.



QUALITY AND EFFICIENCY ARE MAIN ESSENTIALS IN A PIANO YOU GET THESE IN A BELL PIANO

We take the time and pains to build them right. There are many good features in the BELL never found in other makes. Information in our (free) catalogue No. 40. Send for it.

The BELL PIANO & ORGAN CO., Limited
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ASK FOR PAMPHLET
"Endowment at Life Rate"

Valuable Book on Barn Building FREE



Write at once for this valuable book. It contains information that every farmer should have regarding the sanitary housing of dairy cows. It explains every fundamental of correct construction and gives proper dimensions and arrangements. It describes lighting, ventilation, stable floors, and their construction, and contains suggestions about silos, site, exposures, appearance, design, drainage and inside equipment. Besides, you will find in this book a number of practical barn plans and other information that may point the way to your saving many a dollar. We have designed many of the finest and most modern dairy barns in this country and this book is based on our long experience and expert knowledge in dairy barn construction. The book contains in concise, clear and condensed form, information necessary to any farmer who is planning to build or remodel. Understand, we send you this book absolutely free without any obligation on your part—just for answering these few questions: Do you intend to build or remodel? How soon? How many cows have you? Will you want a litter carrier? Will you want a manure outfit? Send to-day.

BEATTY BROS. BOX A FERGUS, ONTARIO

DE LAVAL CREAM SEPARATORS

SAVE MUCH TIME AND LABOR IN SUMMER

Besides their great increase in quantity and improvement in quality of cream and butter DE LAVAL Cream Separators save a great deal of time and labor.

This great saving of time and labor counts for more in summer than at any other season, and often alone saves the cost of a separator, aside from all its other advantages.



As compared with any kind of gravity setting the saving of man's time and labor and usually woman's drudgery is simply overwhelming.

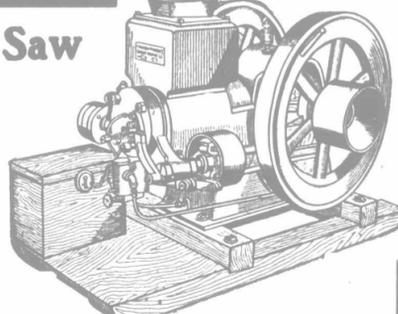
As compared with other separators the DE LAVAL saves much time and labor by its greater capacity, easier running, easier handling, easier cleaning and freedom from need of adjustment or repair.

These are merely some of the advantages which make a DE LAVAL Cream Separator the best of all summer farm investments, as every DE LAVAL agent will be glad to explain and demonstrate to anyone at all interested.

See the nearest DE LAVAL agent **at once**, or if you do not know him, write us direct for any desired information.

DE LAVAL DAIRY SUPPLY CO., LIMITED
173 WILLIAM ST., MONTREAL; 14 PRINCESS ST., WINNIPEG

Pump Water, Saw Wood, Grind Grain, Churn



Barrie Engines

Stationary or Portable; 3 to 100 h.-p., for gasoline, distillate, natural gas and producer gas. Make and break or jump spark ignition.

and do many other labor-saving tasks with the **Barrie Engine**. Will pay for itself quickly by saving valuable time for you. Strong, rugged construction. So simple a lad can run it. Sure in action. Economical in operation. Every farmer needs one.

Write for booklet.

AGENTS WANTED

THE CANADA PRODUCER & CAS ENGINE CO., LTD.
Barrie, Ontario, Canada

Distributors: James Rae, Medicine Hat; Canada Machinery Agency, Montreal; McCusker Imp. Co., Regina

AFTER LABOR, REST—In Your Own Garden

Beautiful and Useful Trees and Shrubs
Evergreen and Flowering

Lovely Roses
Bush, Climbing and Tree. All shades of color.

Quick Growing Climbers
All sorts for every purpose.

Hedge Plants
Spruce, Privet, Buckthorn, Honey Locust, Quince, Osage Orange.

Shade Trees
All sorts, sizes and prices.

Specimen Shrubs
Including Weeping Mulberry, Willow, Elm, Beech, etc., and

ALWAYS Fruit Trees by the Million
Apples, Pears, Plums, Cherries, Peaches, Grapes, Raspberries, Currants, Gooseberries, etc., etc.

The right sorts for your locality

Write me your requirements. Always glad to give my opinion, gained by **practical experience**.

Call and inspect trees growing.

ONLY ADDRESS:
E. D. SMITH
Helderleigh Nurseries and Fruit Farms
WINONA, ONT.

WHITE STAR DOMINION

LARGEST STEAMERS IN CANADA

MONTREAL—QUEBEC LIVERPOOL

SAILING EVERY SATURDAYS by the "LAURENTIC" AND "MEGANTIC"

Fitted with every up-to-date device for comfort and safety. Elevators. Orchestra carried.

"TEUTONIC" & "CANADA"
One Class Cabin (11) \$50 and \$55
Third class passengers berthed in closed rooms only

THE ST. LAWRENCE IS THE SHORTEST ROUTE TO EUROPE ONLY 4 DAYS AT SEA

For full particulars apply to any Local Agent or Company's Office, Montreal, Toronto or Winnipeg.

FLOWERS WILL BLOOM ALL WINTER

in your home when it is heated with a **PEASE WARM AIR FURNACE**

This alone is strong testimony of the purity and freshness of the air. But while we all love flowers, the most important feature of all is the health of your family, which can only be maintained by breathing fresh air. Now, with the Pease special "Air Blast" device almost all the poisonous gases liberated by the coal are consumed—making more heat and keeping the air pure.

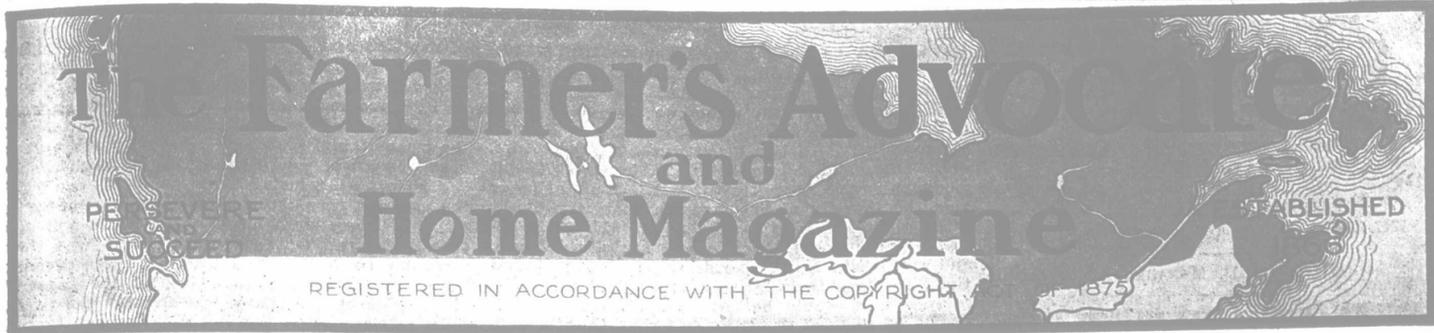
"ASK THE MAN WHO HAS ONE."

Our books, "The Question of Heating," or "Boiler Information" sent free on request.

PEASE FOUNDRY COMPANY, LIMITED
TORONTO, ONT.

ONLY EXCLUSIVE FURNACE MAKERS IN CANADA

PAYS FOR ITSELF BY THE COAL IT SAVES



Vol. XLVII.

LONDON, ONTARIO, JULY 11, 1912.

No. 1038

EDITORIAL.

Poor seed corn and a cold June make a discouraging combination.

Did you test your seed corn? If not, the "I-told-you-so" neighbor has a fair chance to talk.

If a little of the time spent drawing unscreened gravel were devoted to raking up and hauling to the stone-crusher the cobble stones and large pieces of gravel now rolling around on the driveway, it would be a move in the direction of true economy.

From the way motor-trucks and pleasure cars stream up and down the highways, leaving long clouds of dust in their wake, and making pedestrian or equine means of locomotion almost unbearable, it looks as though farmers will soon be compelled to use automobiles in self-defence.

The first cutting of alfalfa at Weldwood, removed during the last week of June, made an average of about a ton and a half of cured hay per acre, all coiled up and harvested without rain. On the part of the field seeded with barley the stand was thin, the growth late, and the weeds thick. On the summer-fallowed portion the crop was clean, and must have cut nearly two tons per acre. Dominion Day saw the field nicely tinged with green, though no rain had fallen for ten days or over.

The beauty of the elm tree grows upon one. For combination of stateliness and grace, what specimen can equal it? Individual it stands along the boundary fence or in the pasture field, its giant trunk straight as an arrow, massive, topped with branches drooping at the tips, almost every tree displaying a particular form of its own. Thanks to the minor value of its timber, it has been spared the axe where other trees have fallen. Long may it remain in suitably-selected locations. Spare the elm.

If the Recording Angel keeps a record of crimes committed in the name of road improvement, we should like to look over his list. There must be a great many entries against supervisors who allow coarse gravel to be dumped in heaps or ridges along the highways, without first screening the larger stones. These, if crushed, would make excellent surfacing material. Loose, they find their way to the surface, causing endless annoyance and trouble to vehicles, horses and persons; also, injury to the road itself.

"He used to have quite a lot of horses around, and raised mostly grain and timothy hay, but he never got ahead till he kept cattle." Such was the succinct observation of a country lad the other day, referring to a farmer who is now quite comfortably well off. There is a lot in it. They say, in the West, where long, hard trips are to be made, the ox makes fully as good time as the horse, and stands privation better. In the East we do not need the horned beast for locomotion, but his brother, the steer, and his sister, the cow, are still two great stand-bys of agricultural progress. While returns seem slow, they are pretty sure, and the manurial by-product builds land surprisingly, if carefully saved and applied. It is another case of slow and steady winning the race.

Engaging Rural Teachers.

To a greater extent than in former times the engagement of teachers for the rural public schools dates from the midsummer, rather than the winter vacation. Referring particularly to the Province of Ontario, one reason for this is that the normal schools at the former season send out their quota of certificated additions to the ranks of the teaching profession, and, though new to the work, these are quickly picked up by alert boards of trustees whose schools, unfortunately, for one reason or another, may fall vacant. The choice of a teacher is the most important duty of trustees in promoting the educational interest of the section. Particularly is this so at the present time, when determined efforts are being made to raise the standing of the rural schools, in order to the betterment of the communities whose interests they serve. The very first considerations are those of professional qualification and character. Not how cheap, but how good, is the question. The day of cheese-paring is happily passing. Progressive men now insist on wiser counsels. The remuneration accorded the teacher is one of the gauges whereby the status of a community may be judged. The standards required are higher than formerly, and, in common with other occupations, the preparatory cost has greatly increased. In poorer sections, where the school population is not great, economy may with some force be urged, but even where the attendance is comparatively small, it is better that a good school, with capable teachers, be maintained, than that the scholars should be handicapped probably for the rest of their lives.

In the choice of a teacher for a rural school, preference, by all means, should be given, other things being equal, to a teacher, male or female, brought up in a good farm home, so that one in sympathy with and possessing actual knowledge of country life and its pursuits may be secured. A few sections, too, may be fortunate enough to avail themselves of the services of teachers who have had the advantage of supplementary courses at the agricultural colleges. When the credentials of a teacher of experience are under consideration by the trustees, undue weight should not be attached to success in passing large classes through the high-school entrance examinations, which is sometimes unwisely done, at the expense of proper attention to other classes, particularly younger ones which require the most personal attention.

Perhaps one of the most serious evils afflicting schools is the frequent change of teachers. Circumstances may arise where a change is advisable or necessary to the well-being of the school, but, as a rule, the advantages are distinctly in favor of permanence. Experience has proven this again and again. A good teacher requires time to make his or her impress for good fully felt upon a section. To see the pupils grow from year to year, and develop from class to class, is the true ideal. To become properly acquainted, scholars and teachers require months of time. We are inclined to believe that the localities are few where nowadays a change is suggested on the score of obtaining a lower-priced teacher, who is too often inexperienced. To save a paltry \$50, \$75, or even \$100, years of precious school time have not infrequently been wasted, and incalculable harm done a section. Then, to still further achieve the best results, let teacher, trustees and parents work together as a co-operative society, for the advancement of every scholar within the bounds of the section, and to make the school the best in the district.

What High Feed Prices Mean.

Last winter was noted for the high prices which all kinds of feed brought in the open market, and prices are still high, and from all indications quite likely to be so. What do these high prices mean to the stock farmer? Simply this, if he doesn't feed the right kind of stock, his profits will not be sufficient to pay him for his labor, and there is a possibility of the balance showing on the wrong side of the sheet. Shovelling expensive roughage and concentrates into inferior animals is just as much a waste as allowing crops to spoil in the fields for want of necessary machinery and help to get them harvested. Inferior stock has caused many a feeder to quit the business and join the multitudes who sell their grain, hay, and sometimes even the straw, rather than feed it all winter for nothing but the manure pile, and often this has to be reckoned in the assets to show an even break on the season's business. Nothing drives people out of any business or branch of the business more quickly than small returns.

Every grain-grower, stock or general farmer knows the dissatisfaction and ultimate loss which is necessitated when his farm machinery is inferior. It is just the same when inferior stock is kept. The animal is the machine which converts the raw material into the finished product, and, to be operated at a profit, the machine must be as efficient as it can be made.

High feed prices should cause breeders and feeders to pay more attention to the class of stock kept. Instead of eliminating live-stock altogether, on many farms the tendency should be to eliminate all poor stock and increase the numbers of the higher class of animals. High prices should prove an incentive to breeders to improve their studs, herds and flocks. There is room in Canada for more of the best class of dairy cows, more of the best class of beef cattle, more good bacon hogs, and millions more mutton sheep. There is money in good stock, even if feed prices are high. There is little to be made from scrub stock, even when feed prices are low. The price of feed should then be a factor in our live-stock husbandry, which should serve to promote the cause of the best-bred individuals.

Fodder Prospects.

Critical observers are already prophesying another winter of short feed. In many sections the hay crop is disappointing. Speaking with particular reference to Western Ontario, it is noteworthy that very little new seeding caught well last year, many seeded fields being afterward plowed up. Old meadows have in many localities made poor growth this spring, due, in part, no doubt, to close grazing last summer and fall. In some counties alfalfa was badly winter-killed, while corn, the great reliance with many, has been sadly hit by poor seed and cold weather, more especially by frosty and cold nights, continuing into July. Probably the corn crop still holds surprises in store, but it can hardly be a bumper crop, and, indeed, many fields have been plowed up and resown to crops like millet. With practically no reserves of fodder carried over from last spring, the prospect for bulging mows is not bright, save where conditions are exceptionally favorable, or where superior methods have had play. There should be no cheap hay sold from the fields this summer.

THE FARMERS ADVOCATE AND HOME MAGAZINE

THE LEADING AGRICULTURAL JOURNAL
IN THE DOMINION.

PUBLISHED WEEKLY BY
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JOHN WELD, MANAGER.

Agents for "The Farmer's Advocate and Home Journal,"
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Across the Plains of North Middlesex.

That the Province of Ontario possesses a plains country essentially similar in some respects to that of the great Prairie West, will come as a surprise to most readers, but a trip north from London on the Huron & Bruce branch of the Grand Trunk, or west from Stratford along the Port Huron line, will bring the fact home with depressing clearness. There are many wide, level stretches of country in the Banner Province, but they are in most cases still dotted plentifully with small groves of woodland, and parcelled into homesteads averaging in the neighborhood of a hundred acres or thereabouts. So, also, was the region of which we write, but a change of conditions set in some years ago, by which it has well-nigh been converted into cattle ranches. Cleared of nearly all its woodland, the landscape presents long vistas of level land, reaching away, with unobstructed view, mile upon mile from the railway. Except where the process of depopulation has progressed farthest, fine, comfortable, two-story, white-brick houses, with ample barns, dot the face of the land, though these are by no means so numerous nor so universally occupied as in the prosperous south-eastern corner of the county, where dairying holds sway. Farm after farm has been sold by its well-to-do owners, who have retired to the villages and towns, or in some cases have moved away to the West. The land is by no means forsaken, however, but is bought up by those who remain, and thrown together into holdings of three, four, six and up to fifteen hundred acres. What proportion of this can be tilled by the owner, with the help, maybe, of a son or two, or, perhaps, in rare cases, of a hired man, is cropped, while steers graze the rest in veritable ranches, often with none but an outside boundary fence. With this system of utilization, only small acre returns are realized, but the labor is at a minimum, and the owners seem content with these moderate returns. The land is by no means going at sacrifice value, farms bringing around eighty and ninety dollars per acre. Intrinsicly, the soil is worth it, for a finer, fatter, better-watered, nicer-lying and nicer-working clay-loam soil probably does not lie out of doors. At least, we have never seen more equally good land in one uninterrupted stretch.

What has brought about this state of affairs? Why has so much of this fine land reverted to steer pasture—its least productive use—while many

less-favored sections are still quite thickly settled and carefully tilled? This question we propounded to the well-known stock-breeder, A. W. Smith, ex-M. P., with whom we enjoyed a pleasant drive, in company with the new District Representative of the Department of Agriculture, Mr. Whale, and whose delightful home at Maple Lodge we were presently to visit. Lack of labor was the keynote of his answer. But why did it affect this section so particularly? "Well," he replied, "the people here were fairly well-to-do, and when help became so scarce, and they found that, to work their farms as they had been accustomed, it would be necessary almost to make slaves of themselves, they preferred to sell out and quit. Some went West, but many retired to village or town life. You see, they had sufficient means to do this, if they chose." Taking North Middlesex, conditions have reached their worst pass in the Township of East Williams, where long lines of forsaken buildings may be seen falling into ruin, with only a resident here and there. There are many cases, however, in McGillivray and Biddulph where three or four farms have been thrown into one.

It seems a shame to see the process, for not only is the country superb for general agriculture, but it was settled by a fine stock of people. The township of McGillivray and part of Biddulph, was largely settled by migrants from Markham and Scarborough, in York County, lured west by the age-long quest for land. East Williams was largely settled by Scotch, while London Township was occupied by immigrants from "the Border."

It must not be inferred that North Middlesex is peculiar in this condition; considerable areas of Huron, Bruce and parts of Lambton are the same. One wonders where it will end. At present, the tendency towards concentration of areas seems unabated. That more might be made out of the land is indisputable, but the great cry is for help. Not only is it scarce, but, worse still, so uncertain. You've got it, and you haven't got it. A farmer lays his plans to crop a certain acreage, and gets the seed sown, perhaps; then maybe his man leaves, he doesn't know where to look for another, and has to do two men's work himself. Next year he is likely to attempt only what he can do easily with his own hands. Mr. Smith, for instance, had only two men, instead of the three he would like to have, and, partly as a precaution against contingencies, makes it a point to seed down every acre of grain crop each year, so that he may be in a position to quit whenever occasion demands. Of course, this plan has the additional merit of being good for the land. Mr. Smith's rotation, by the way, is a seven-year one of peas, wheat, hoed crop, barley, wheat seeded down and left two years in meadow. In addition to the rotated area is some permanent pasture.

Conspicuous for productiveness, as well as cleanness, even in the fertile township of McGillivray, is the 230-acre farm of Maple Lodge, where our camera was brought effectively into play among the Shorthorns and Leicesters for the future edification of our readers. So also of the broad, clean, well-ordered acres owned by John T. Gibson, of Denfield, whose seventy-one years do not prevent him doing a hustling day's work in the field, and whose uniformly typey and thrifty Shorthorns and Lincolns would delight the eye of any live-stock artist. Mr. Gibson and his son were turning by hand a very good first crop of alfalfa, while across the fence a conspicuous patch of tall, broad-leaved, dark-green oats, standing out in a large field of good grain, marked the place where an alfalfa meadow had been plowed up last year for corn.

These two farms, with their thrifty stock, lush pastures and luxuriant crops, stood out the features of a day's trip, and would convince the most skeptical of the ultimate economy of a system of farming which involves the keeping of good stock and feeding practically all the produce on the land.

HORSES.

Toronto's Open Air Horse Show.

What could be finer and more appreciated by the thousands of lovers of the horse than the great horse show held in Queen's Park, Toronto, annually, on Dominion Day? What could accomplish more in the interests of the horse than this show? It is largely a work-horse exhibition, although the fancy horses are there, as well, and, to inspire love for their charges, nothing could be conceived which would accomplish the trick of giving each driver a chance to fit and show his horse in competition with others. It is a real treat to the city work horse. It gives the people a chance to see them on dress parade, and does much to maintain the position of the horse in the esteem of the citizens.

The 1912 show exceeded all others in point

of numbers and quality. There were 615 entries, and the grand parade after the prizes were awarded was some three miles in length. Think of it, three miles of horses, mostly work horses in the finest of mounted harness, and hitched to the cleanest and best-kept wagons, carts and lorries. Is it not worth while to hold such a show?

The prize-list included fifty classes, and by far the greatest turn-out was in the heavy-horse sections. In one class for delivery horse and outfit there were thirty-six entries, and it was found necessary to divide the class into three divisions, heavy, medium and light. One of the finest displays made by the heavy-drafters was the twenty-eight entries of the Dominion Transport Co. It is encouraging to horsemen to note that, in spite of the auto-truck, the heavy horse is growing in popularity, and his numbers are increasing at shows like this. Such conditions do not point very distinctly to a horseless age.

The horses assembled at eight o'clock in the morning, and at 10.15, immediately after the judging was completed, the parade, headed by a troop of the 9th Mississauga Horse, mounted on forty fine gray chargers belonging to the Robt. Simpson Co., and accompanied by plenty of music, began its course through the thronged city streets and park drives.

This was the tenth of these parades and exhibitions held in Queen's Park. The expenses of the show, amounting to \$2,600, are paid by popular subscription. There is always plenty of money to promote the horse and his welfare. Let the good work continue to grow. Every city could well afford to honor their equine beauties thus, and, for an object lesson, let some of the people of the country and other cities make it a point to attend Toronto's next open-air horse show.

Breeding a Heavey Mare.

I saw lately in your valuable paper the question asked, "Should a heavey mare be bred?" As I have had some experience, I think I will give your readers the benefit of it. Some years ago I read in "The Farmer's Advocate" a splendid article on "Choosing the Brood Mare." I would have liked to have followed the advice given, but I was too poor, so I bought a mare with the heaves. She was a short-legged, well-built beast, with a kind, quiet disposition, and too slow for funeral purposes.

Now, I had a lot of neighbors who were possessed with a fund of scientific knowledge on horses; knew it all, in fact, or thought they did. They had not, it is true, studied in a veterinary college, but they knew all that their grandmother had read out of the almanac. They said the mare could not be got in foal; it was impossible for a heavey mare to breed; if she did breed, she was sure to abort; if she did not abort, the foal was sure to be dead, and if it was not dead, it was sure to have the heaves, too. She had been bred five times, unsuccessfully, already. They had huge merriment over my foolish attempt to breed her.

I was taking "The Farmer's Advocate," and according to this valuable paper, these wise acres were all wrong. I tried, anyway, and the result was I got a splendid mare colt—a perfect beauty, perfectly sound in wind and limb, and in every other way. She is now six years old, and no heaves yet. I bred my old mare again, and was again successful. Got another beautiful colt. He is perfectly sound, too. I know of another beautiful Clydesdale mare, a ten-year-old, still sound, whose mother had the heaves very badly.

Now, I do not advise a man to breed a heavey mare if he can get a better one. Breed the best mare you can get hold of. But if a man is poor, and has nothing else, and the mare is sound and well built in every other way, I say breed her late in the season, or just after the season is over, so the mare will have a few weeks on the grass before she foals. This will help her a lot. Read all the excellent articles on the subject published in "The Farmer's Advocate." Follow the advice given, and the chances of success are fairly good. ALFRED G. SMITH.

Parry Sound, Ont.

[Note.—Heaves is a disease which has a very marked tendency towards being a hereditary unsoundness. It is very often the case that the offspring of a mare which has a well developed case of heaves show in their later life the same disease. Heaves do not usually develop until the horse is mature, six, seven, and often up to ten or twelve years of age. There is always the danger that the offspring will some time in life be afflicted with the disease, and, as breeding such mares generation after generation is simply perpetuating the trouble, where other mares are available it is not advisable to breed them; but,

as in this case, special circumstances warrant giving them a trial. Heaves do not, as is believed by many, cause a mare to become barren, although breeders often experience more difficulty in getting a mare with the heaves to conceive than was the case before she contracted the trouble. The advice given by Mr. Smith, "Breed the best mare you can get hold of," is what all horse breeders would do well to follow.—Editor.]

Keep the Colts Growing.

The foal is, during the first days of life, about the most susceptible of the young of domesticated animals to disease, as a result of bad treatment or unfavorable conditions. Once rightly started growing, a healthy foal under good management makes about as rapid strides as any of these in gaining strength and weight. No colt will make good gains without sufficient nourishment. During the earlier days and weeks, the matter of supplying this is usually left entirely to the dam, and if she is well fed and is a fairly heavy milker, the colt should need nothing further. No mare should be put to work for a couple of weeks after foaling, as in her naturally weakened condition she is not physically fit to withstand the demands made upon her system by the energy required to perform the work and that required in the production of milk for her offspring. To give the colt the best start in life, the less the mare is worked, the better, even during the entire summer. The colt requires nourishment, little and often, and, where his dam is doing duty in the team, this is not possible, and deprives him of one of the essential conditions which nature intended him to have.

The young colt with his dam, either in the stall or pasture, should be taught to eat a little grain as early as possible. Oats are the most palatable concentrate for horses, and, mixed with a little bran, make a tasty and good-feeding ration for the sucking colt. A box so placed that the mare cannot get at it is very convenient for this purpose, and the youngster soon learns to feed regularly from it.

Whether or not, the mare not working should receive grain when the colt is nursing depends largely upon her condition and upon the pasture she is on. When the grass becomes short and parched, a few oats and a little bran would go a long distance towards keeping her in good flesh and maintaining the milk flow for the colt. Of course, where the mare must work, allowance must be made in her ration, for the fact that, besides doing her share of the horse labor, she is called upon to feed a hungry foal. She must have grain in larger quantity than is fed to her working mate.

It sometimes happens that the mare is a poor milker. In such cases, as the colt gets a little older, it is often advisable to use a little cow's milk to keep him going ahead and making the best growth. In feeding cow's milk whole, it must be remembered that it is richer in fat than a mare's milk, and it is better to add a little water and some sugar. What is most required by the colt is an abundance of food rich in protein, the best muscle-forming ingredient. Whether in his mature state he is required for draft purposes, for fast work, for riding or fancy driving, his usefulness depends to a great extent upon his size and muscle development, both of which depend directly upon his feed and care during his early life. It is growth and muscle that is wanted, not excess fat. For this reason, good sweet skim milk (cow's) is often regarded as being of more real value in colt-feeding than whole milk. It must be fed sweet, whether whole or skimmed, as sour or tainted milk is very likely to produce digestive derangements of a more or less serious character in the colt.

Young and tender, susceptible to every little change in conditions surrounding him, the colt, the future horse has his destinies, as far as usefulness and conformation go, largely settled during his first two years of life, and particularly during the first few months. It requires no little amount of skill to hit the "happy medium" in colt-feeding, not overfeeding or putting too much fat on him in early life, and at the same time giving enough to keep him making maximum growth. A colt made overfat seldom makes a large horse, and is very likely, unless carefully exercised, to "go bad" on his legs, ruining him as a show-yard proposition, and injuring his usefulness in any capacity. On the other hand, the starved colt never makes the horse he would under favorable conditions. Growth should be the aim of all horse-breeders in the management of their colts. The bigger the better, provided no injury is done in gaining the size.

LIVE STOCK.

Utility the Key Note.

All animal breeding which is not based upon utility is of little or no good to the cause. A pedigree may contain some very high-sounding names, but unless the individual animals which bore them were of some real use as milk, beef, mutton or pork producers, they are really meaningless and valueless. The family of animals which shows by actual records of usefulness in some capacity that it has some superior merit, is of more value to the owner than all the "blue" blood of animal history, provided such "blue"

The Stocker to Buy.

The cattle feeder who operates on any considerable scale is not able to produce his own stockers from year to year, and is forced to rely upon the open market or upon the surrounding country. The right class of cattle for fattening purposes are none too plentiful in Canada; in fact, they are scarce, far too scarce, and, in order to get a stable full of choice steers, it is often necessary to scour large areas of country, and then take some cattle of an inferior type. This being the case, it will pay all those who have the pasture and contemplate feeding steers next winter to locate and purchase their necessary cattle early in the season. The longer it is put off, the greater will be the percentage of inferior and cull cattle offered. Owing to the high prices paid for cattle the past spring and the demand for first-class finished steers at the present time, it is more than likely that there will be an increased demand for stockers, as high prices for the finished product invariably exert an appreciable influence upon the raw material, giving the market an upward trend.

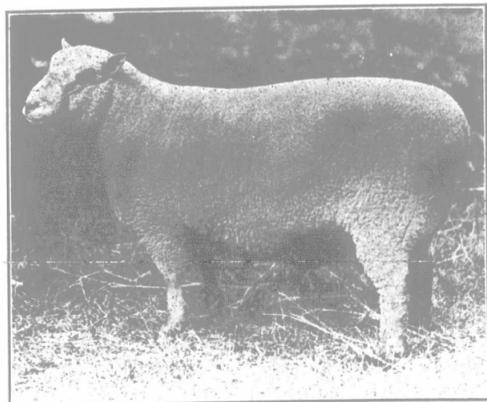
There is a profit in steer-feeding, but there are several conditions governing the game. Steers must be bought right; that is, a price must be paid which will leave sufficient margin of profit when the finished animal is disposed of. This involves a knowledge of conditions upon which the market hinges. The buyer must be a good judge of what



Rickford Lady and Foal.
Shire mare. Reserve champion at Royal Counties Show, 1912.

blood has never been a real factor in actual productive value. Fashion has held sway in all breeds of stock at one time or another. Color crazes have come and gone. Shapes and angles of unimportant members have changed with breeders' fancies, but all this is passed or passing. This is the day of the breed and the animal which can do things for the owner. It matters not what color the cow is, so long as she fills the pail with rich milk. It makes no difference whether the steer is black, white, red or roan, as long as he has the beef qualities. It matters not

constitutes a profitable feeding steer. The mongrel-bred animal, with the narrow muzzle, long, slim head, coarse, spike-like horns, and wedge-shaped conformation throughout, is never a profitable feeder, and is not a satisfactory proposition from the viewpoint of the raiser of stockers, the feeder, the drover, the butcher or the consumer. He is a misfit. The steer which has seen too many summers is seldom as profitable a feeder as the younger animal. Very often he has been stunted in early life, and has been kept an extra year to make up for the loss. Such a steer does not make as large and cheap gains as a younger animal whose growth has never been in any way impaired. As a rule, a two-year-old steer which has made good growth is the most profitable stocker. The fact that he has not yet finished growing makes it easier to make large gains, although a little more difficulty may be experienced in getting the highest degree of finish on him. One year with another, and taking into consideration all conditions, the steer which is put in as a stocker when a little over two years of age, and marketed as beef the spring or summer that he is three years old, makes as good a profit as any. Of course, a poorly-grown, undersized animal should not be bought, as the profit depends considerably upon the size of the steer when purchased, as the spread in price operates on the original weight, so the greater this weight, the greater the profit from the spread. For instance, if a steer weighed 800 pounds, and was bought at 5 cents per pound, and sold at 7 cents per pound, a spread of 2 cents per pound, the profit arising from the spread on the original weight would be \$16; whereas, if the steer had weighed 1,200 pounds in the beginning, the profit would have been \$24—a difference of \$8. The gain in weight must also be reckoned with, and, provided the steers are the same age, and just in good thriving condition, the heavier steer is likely to make better gains than the lighter one, because he has every indication of being a better doer. The young steer with plenty of weight is the steer to buy.



A Southdown Prizewinner.
Two-shear ram from the flock of F. H. Jennings, winner of championship at the Bath and West Show, at Bath.

how long or what color the sheep's ears are, as long as she raises good mutton lambs having a fleece which the buyers like. Who cares whether the pig's nose is long or short, whether it turns up or down, or whether his color is red, black, white or spotted, as long as he produces desirable pork at a profit? An animal must be more than good to look at, must have qualities other than those which meet the whims and fancies of a few wealthy breeders, to be of real value to the breed to which it belongs and to the man who seeks to make his living from the perpetuating of the breed.

Seasons like the present afford plenty of object lessons to impress the economy of leaving a good top on the meadows over winter.

Some attention must be paid to conformation, quality, and indications of further feeding propensities. A big, rough steer is not desirable. Smoothness must accompany size. The steer should have a strong muzzle and short, broad head, with a great spring of rib and good barrel, indicating a hearty, strong-constituted, good-feeding animal. He must be one which, with feeding, will round into a condition which causes him to fill the eye well, and to be strong at those points from which the butcher gets his high-priced cuts. Size, smoothness and strong constitution are the strong points in the feeding steer.

A Few Sheep Enough for a Beginning.

No doubt the extra efforts now being put forth by the Dominion Government and the Sheep-breeders' Association to promote sheep-breeding in Canada, will have the desired effect of starting many new flocks in this country. The problem of breed matters little to the beginner, as long as he gets one for which he has an especial liking, as we have many hardy breeds, grades of which would form a very suitable foundation for the beginner's flock. It is generally advisable to begin with a few good grades, rather than experiment with the higher-priced pure-breds. Good pure-breds make the initial cost greater and increase the risk, while poor pedigreed stock is always undesirable, and never finds ready sale at prices more than those which obtain for mutton. So, begin with a good grade flock, into which no inferior or scrub individuals are allowed to enter. Choose ewes from one to three years of age. Never buy old ewes for flock foundation purposes. The sheep is a short-lived animal, and even when purchased young, they grow old soon enough.

The number purchased depends largely upon the size of the farm and the knowledge of the business. If one has had no experience, just a few head, say ten or twelve ewes to a hundred-acre farm, are plenty for the beginning. It is a good plan to use, year after year, pure-bred rams of the same breed as that of which the ewes are grades. Avoid violent crossing. The best way to become familiar with any work is to do it. So it is with sheep-raising. Practical experience with the flock will, as years go by, increase the owner's knowledge of what is required to successfully operate sheep-breeding, and, as his knowledge increases, the size of the flock may be increased, without danger of the business outgrowing the ability of its management. As time progresses, and the owner feels that conditions warrant the change, a few pure-breds may be bought to replace the grades, and gradually the entire flock be superseded by the better-bred animals. There is often a tendency, when beginning a new enterprise, to start on too big a scale. Many a commercial business has gone under because it was too far in advance of the ability of the operator. Sheep-raising is not nearly so dangerous in this respect as some other agricultural ventures, but it is wise to move slowly. It is to be hoped that every stock and grain farm in Canada will soon be able to boast of a few sheep. Think what it would mean to the country. Try the sheep. Begin now. They are profitable and easy to manage, will aid in increasing the size of your bank account, and also in the destruction of the worst weeds.

Points in Steer Breeding.

Dean Funk, in an American farm journal, says breeding for beef will not be done on the high-priced lands of Illinois; instead, they finish the thin steer. Mr. Funk gives expression to a popular belief. It has been shown that a colt on full feed will the first year make half his mature weight, the third year half the weight of the second year. This being true, the thin steer is a mistake. A grade Shorthorn two weeks old weighed 107 pounds. He had for a nurse an old cow, with a few left which we had used two years as a nurse without freshening. This we supplemented with milk from separator. He was eating hay and silage, mixed with corn chop, oats and bran. He just doubled his first weight, and made 214 pounds. We get them on skim milk at about two to three months. We feed milk till they go to the block. A steer one year old weighed 1,035 pounds. With best feeding, we could not have beaten fifteen hundred the second year. Just like the colt, half the gain of the first year. T. B. SCOTT. Middlesex Co., Ont.

THE FARM.

Weeds Which Contaminate Clover Seed.

In the production of alfalfa seed, the weeds to be especially watched are ragweed, ribgrass, bladder campion, trefoil and sweet clover. Usually, it is only the perennial weeds which contaminate the seed, if the killed out and thin places of field are taken care of with a scythe.

In red clover, most of the wild mustard disappears with the first cutting. The rest must be hand-pulled. Docks should be cut or pulled if they appear after the crop is removed for hay, and any other perennials must be dealt with in a similar way. Ribgrass and campion seeds are also those of ragweed and sweet clover. Sweet clover is becoming quite prevalent and may be most easily removed from the first crop by pulling or spudding after a rain.

To Control Grasshoppers.

What will drive away or kill grasshoppers? The farm adjoining ours has not been worked this year, and a large meadow field adjoining ours has not been worked for years, and this year is nothing but a grasshopper hatchery. I happen to have a big root crop adjoining, and they are cleaning out the young mangels and turnips, and am afraid they are going to destroy all my root crops. M. S. W.

The order of insects known as orthoptera contains many well-known families, including cockroaches, crickets, grasshoppers, etc., all of which have biting mouth-parts, and many of which, when present in large numbers, do great damage to growing crops. Two families, acrididae, the short-horned grasshoppers, and locustidae, the long-horned grasshoppers, are particularly well known, the former being the family to which the term locust is rightly given. Every Biblical student is familiar with the plagues of the locusts in ancient times, and ravages have been made at intervals in various sections of the world up to the present time. While we are not often in danger of losing the crop of very large areas in this country, cases like the one in question are not by any means infrequent, especially in districts where light land and old meadows abound, and some means of control is absolutely necessary in such cases. The red-legged locust is one of the most common and most destructive of the acrididae, and the meadow grasshopper (having antennae or horns longer than the body) are the most common of the locustidae.

A dry season, such as that which we experienced last year, is very favorable toward the multiplication of the various species, and a second dry season usually brings much loss from these insects. Eggs are deposited by the females in the ground in masses containing about thirty,

not care to be bothered with too many weights, a convenient means of measuring the ingredients is one given by Mr. Criddle, the originator of the mixture: Five ordinary pails equal approximately 100 parts of horse droppings, and each part equals in bulk one pound of Paris green. As horse droppings do not always weigh the same, the bulk method of measuring is more satisfactory than weighing. Place the mixture in a barrel or half barrel, and scatter it along the edge of the crop. The locusts will come to it in large numbers and will be killed by the poison in the mixture. Scattered loosely in the crop at the edge of the fields, there is little danger of animals or poultry being poisoned. This is a cheap and effective remedy—most effective when the mixture is spread a little at a time every other day, rather than scattering a large quantity at once.

Bleached Oats and Barley.

The United States Department of Agriculture has received numerous inquiries relative to the application of the Food and Drugs Act to oats, barley and other grains bleached with the fumes of sulphur. It appears that by this process grains which are damaged or of inferior quality may be made to resemble those of higher grade or quality, and their weight increased by addition of water. Such products, therefore, are adulterated within the meaning of the Food and Drugs Act of June 30th, 1906, and cannot be either manufactured or sold in the District of Columbia, or in the Territories, or transported or sold in interstate commerce.

It is represented, however, that grains which are weather-stained, or soil-stained, the quality of which is in no wise injured in other respects, are sometimes bleached with sulphur fumes. Pending

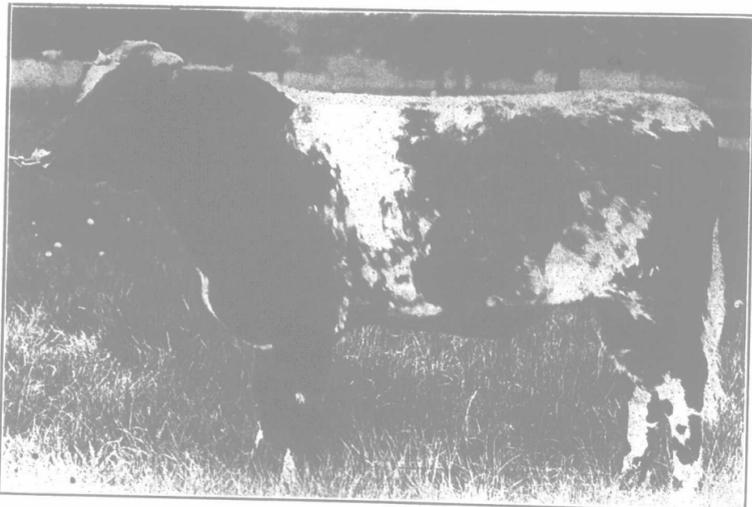
the report of the Referee Board of Consulting Scientific Experts as to the effect upon health of sulphur dioxide, and the results of experiments being made by the Department as to the effect of sulphur-bleached grains on animals, no objection will be made to traffic in sound and wholesome grains which have been bleached with sulphur dioxide and from which the excess water has been removed, provided that each and every package is plainly labelled to show that the contents have been treated with sulphur dioxide. Bulk shipments should be properly designated on invoices. The terms "purified," "purified with sulphur," "processed," etc., are misleading, and not proper designations for these products.

Attention is also called to the fact that grains bleached with sulphur fumes may have their germinating properties very seriously impaired.

Hopper Dozers for Grasshoppers.

Dr. C. Gordon Hewitt, Dominion Entomologist, writing on the control of grasshoppers and locusts, covers very thoroughly the ground already covered by an article in this issue. His outline for the preparation and use of hopper dozers is as follows:

The use of hopper dozers is frequently resorted to, and has been found effective in some regions in the destruction of grasshoppers in the various stages of their growth. A hopper dozer consists of a long, shallow iron pan mounted on runners, and in most cases having a screen or sail of canvas at the back to prevent the grasshoppers leaping back over the pan. In the pan water is placed, and over the top of it a layer of kerosene or crude oil is poured, as also on the screen at the back. A useful hopper dozer may be made as follows: A sheet-iron pan is constructed, 16 feet long, 18 to 20 inches wide from front to back, and four inches deep, the interior being divided up by partitions into six or eight sections, and this pan is sometimes mounted on 2 x 6-in. runners, four feet long, projecting both from the front and back, and fastened in front of the pan over a bar with about a dozen 1 x 4-in. boards, and make them fasten into the pan, which must not do anything. At the back and



Proud Warrior.
Yearling Shorthorn bull. First in class at Royal Counties Show, 1912. Property of His Majesty The King.

and in most cases the winter is passed in the ground in the egg stage, the eggs being covered by a mucous fluid that preserves them. The young grasshoppers emerge in the spring, are wingless, and their only means of locomotion is by hopping. After a number of moults, wings make their appearance, and gradually the young commence to fly, many species being capable of quite extended flights.

Remedies, while quite numerous, are not very wide in their range. Turkeys have been found by many to be a very profitable destroyer of the pests, ridding the pastures of them, and converting their bodies into profitable and wholesome meat. Four methods of destruction recommended by Dr. Fletcher are: (1) The plowing down of the eggs in the autumn or early in the spring before the young hatch. As the eggs are usually laid in land under crop, this destroys many of them; (2) the young may be destroyed by plowing down, by poisoning, or by burning in windrows of straw placed as traps for them, to which they resort in great numbers at night; (3) the use of hopper dozers—implements of a light frame covered with canvas or sheet iron, and in the bottom of which some water with coal oil is placed. The insects fly against the canvas, and drop into oily water, and are destroyed. (4) Poisoning. This is the most satisfactory method. Poisoned bran makes a good bait, but cattle mixture has been used, and is one of the best forms of destruction to be used. It is made by mixing one part of bran with one part of a mixture of 1 lb. of Paris green and 1 lb. of sugar dissolved in 1 gal. of water, and mix them together. As the average farmer does

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ends of the pan a vertical sheet of canvas or sail cloth, about two feet in length, is fastened. This, with the addition of two short beams at each end, to which a whiffletree is attached, completes the hopper dozer. It is preferable to have the hauling attachment attached at each end and use two horses, than to use a single horse attached to the middle of the hopper dozer, as more grasshoppers will be caught. In the case of rough ground it may be preferable to have a shorter pan of eight or ten feet in length, or, what is better, to have the 16-foot hopper dozer divided in the middle, making two eight-foot pans, which should be loosely attached to each other. To prepare for use, water is placed in the pan, and the canvas back is also wetted. Kerosene or crude oil is then poured on top of the water in the pan, and the canvas is also drenched with it. The hopper dozer is now dragged over the infested field, and the grasshoppers jumping up in front of it are caught in the pans or against the canvas back, and killed by contact with the kerosene.

A simple though less effective hopper dozer may be made out of sheet iron. A piece eight feet long is turned up one or two inches at the front, and, allowing a width of a foot, is turned up about eighteen inches at the back; two ends are provided, and one or two partitions made to prevent the water and oil slopping out. One or several attached end to end may be pulled along by boys by means of cords attached to the ends of the hopper dozers.

Information will be given concerning insect pests and their control, if inquiries are addressed to the Dominion Entomologist, Central Experimental Farm, Ottawa. Such inquiries should, in all cases, if possible, be accompanied by specimens of the insects and their injuries, and all letters and packages under five pounds in weight may be mailed free, if so addressed.

Dr. Hewitt believes Criddle mixture to be the most effective and most widely-used remedy for grasshoppers.

THE DAIRY.

Printed Butter Papers.

The pound print is the form in which most retailers like to get their butter for the trade. It is a convenient package for the maker in the farm dairy to put up. It is easily handled on the market, is what the dealer wants, and it pays to sell in the form which the market demands. Print butter always has the best appearance, provided it is printed and wrapped in butter or parchment papers. It is in a good condition to be used on the table, but its attractiveness is made or marred by the kind of wrapper used. First, the dairy should be named, and the name, with that of the maker, should be neatly printed on every wrapper. Some design, appropriate to accompany the dairy name, such as one of the best cows, or a "brand" mark, adds to the attractiveness. There is no better way of pleasing customers than by putting up good goods in attractive parcels. It is possible with butter, and never should it be neglected. Butter should be known by the dairy name, and the way to establish the trade is to keep the name on the wrapper before the consumers.

Keep Cool.

No branch of agriculture requires the operator to "keep cool" more than dairy farming. No hot-headed individual should be allowed to attend the cows. The attendants, to get the largest possible flow, must "keep cool"—that is, must never lose their heads, use loud talk, or be rough. The milk must be kept at a low temperature to be wholesome. Cream must be kept cool. To do this, ice or very cold water is necessary. Butter or cheese—in fact, all dairy products—must be kept away from the heat. "Keep cool" is always seasonable in dairy work. From the stable to the consumer, everything in connection with the dairy business gives best results when it is kept scrupulously clean and at a low temperature.

It has been said that no business but farming would stand the enormous loss which results on many farms from defective skimming of milk. Our best dairy farms waste but little, but the majority do not compare favorably with the best.

In running a separator, do the work as soon after milking as practicable. The milk, just as it comes from the cow, is in the best possible condition for separating.

Performance the Only True Test.

Time was when the only method of choosing a dairy cow was on form. In those days no records were kept, and the buyer had no means of knowing whether or not the cow in milking proclivities lived up to her appearance or not. Even the seller had only a vague idea of what the cow was worth, and, while he may have had some indications as to her value from a rough guess at the amount of milk given, he never weighed it, neither was it ever tested, so the buyer and the seller were influenced more by form than by performance. Gradually the best dairy farmers began to see that they could not always rely upon form alone, and milk-weighing was commenced. Weighing was all right as far as it went, but was found to be wanting, so testing was commenced. Neither weighing nor testing alone is sufficient proof of the value of the cow. Even one of these, combined with the best dairy form, is not enough, but approved dairy form, with heavy milking qualities and a high test, these three combined in one individual make a safe and sure basis upon which to buy or sell. A cow may, as far as size and shape are concerned, give every indication of being able to fill the pail with rich milk, and still she may be nothing but a "boarder." True, good dairy form has its value in selecting cows, for such cows are far more likely to be profitable than those which do not possess it, but the point is that the best of form, and that alone, is not enough to warrant that the cow is a profitable dairy animal. Performance is the dairymen's best guide.

so that, to fill the cow, it is necessary to supply something a little more palatable, a little more appetizing, and at the same time a little more nutritious. Pasturing alfalfa, clover or oats involves too much waste, and is consequently rather extravagant. Cutting and feeding, while entailing a little more labor, saves the feed, and a smaller area is required to reap the same results. A partial soiling system appears to be the most logical and efficient method to keep up the milk flow this summer. If possible, try it and be convinced.

POULTRY.

Utility Poultry.

Editor "The Farmer's Advocate":

A good deal is being said and written regarding the importance of the poultry industry, and figures are quoted to show the value of eggs and poultry, as compared with other products of the farm. In poultry papers, too, wonderful accounts are given of the amounts being made out of the poultry business. This leads one to ask the question as to whether farmers are giving this part of their business the attention it deserves, and finding out for themselves just what there is in it of profit for them. The fancy side of it we will leave to one side, as that is practically a business by itself. What we have to consider is the profit to be made out of selling eggs and fattened poultry. We are told on all hands that the farmer

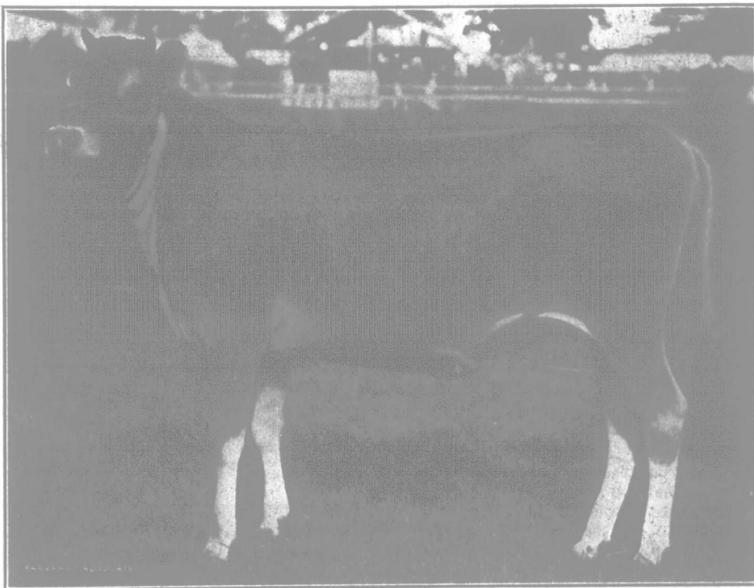
fails to make poultry pay because he keeps such a mongrel lot, and it is no doubt true that mongrel poultry, like scrub cattle, do not do as well as pure-bred stock. On the other hand, there are so many varieties of poultry, with the breeder of each variety claiming his breed as the best, that choosing a variety is not altogether easy, and it becomes a question whether the farmer should not do some experimenting on his own account, and not depend so much on the fancier.

I know what is to be said to the credit of the fancier for the perfecting and even originating of several varieties; but, on the other hand, fancy is being carried to such an extent that it becomes a question whether some of the more important qualities are not sacrificed to appearance. I keep a flock of White Wyandottes, and when I see how much fluff is called for, and know that some breeders have used the White Cochins to obtain it, I cannot but fear that egg-producing quality is giving place to fluff. When I see line-breeding (which is just in-breeding) advocated and practiced so much, I think it helps to account for the difficulty in getting fertile eggs from good breeders.

Now, what we farmers want is not so many fancy points, but hens that will lay well, eggs that will hatch well, and chicks that will mature quickly into good fat roasters. And so I say it is worth while to do some experimenting ourselves. I am not sure but a cross between two pure breeds would suit us best. I know fanciers try to frighten us by calling this a mongrel, but if it is, so are the Barred Rock, the Wyandotte and several other breeds, and so is the Anglo-Saxon race, and it seems to hold its own among the nations pretty well. Several years ago I crossed the Barred Rock hen with Brown Leghorn cock, with good results, and I have heard of other first crosses that have done well. They mature quickly and lay well. I would like to hear from others through "The Farmer's Advocate" who have tried anything of this kind, so that we may benefit from each other's experience, or, if there is any variety that answers our purpose better than any other, let us find it out.

Lincoln Co., Ont. PETER BERTRAM.

Notwithstanding the handicaps of hot weather, moulting and the death of birds in some of the competing pens, there was a substantial gain in the 34th week of the North American egg-laying competition at the Storrs Experiment Station,



Chief Lady.

Jersey heifer. First at Royal Counties, and Bath and West Shows, 1912.

Now is the time for Soiling.

July brings hot weather, and hot weather means dry pastures, unless an abundance of rain falls at short intervals. This is not often the case, and from this time on to the end of the summer season some form of roughage is necessary to maintain the milk flow. The greater number of milk cows never receive any feed other than that which they are able to pick in the pasture, so production during the hot months falls off considerably, and prices hold up well. What a glorious opportunity for the dairymen to make handsome returns by a little extra feed. A feed of clover twice per day means much to the cow on short pasture, and, where properly managed, this gives little trouble. The first cutting should have been made some time ago, and if done, the second will soon be ready. A plot of alfalfa or red clover near the barn is a great boost for summer milk. After the second cutting of clover, why not cut a few green oats, or, better still, oats and peas? A small plot will go a long distance. When this is done, corn should soon be ready for use as a soilage crop, and, if on hand, a few pumpkins will be found useful. It is this special feeding that makes dairying a success. The cow must have an abundance of roughage, and this is supplied to best advantage, where summer silage is not on hand, by soiling crops. Silage fills the bill nicely, but, after a winter of feed shortage like last season, there is very little of it left on most farms for summer use, so pasture and green feed must form the summer ration. Pasture has been good during the early part of the season, but it cannot be expected to retain its sweetness and freshness through July and August. The blue grass, of which most pastures are largely composed, heads out and gets hard, and the leaf-growth practically ceases;

the total being 1,794. An American pen of five White Leghorns are still in the lead with 722 eggs, the English pen of four layers being second with 702 eggs. The grand total of eggs laid for the period was 50,268.

Move the Chickens.

From now on, during this season, the colony house should be a strong feature of the poultry plant. Move the birds to the field, the summer-fallow, the orchard, and in the fall to the corn field. There is no better method of keeping the birds healthy and of promoting vigor and rapid growth. The orchard is one of the best places for the flock in summer. Here they get shade, which is essential on the hottest days. Free range gives the birds an opportunity to forage a large part of their feed. Green food is supplied in plenty, and the various forms of insect life provide an abundance of meat diet. Grit is plentiful, and, if a hopper of dry mash and whole grain and plenty of pure water is kept at the colony house, the birds should make the best possible returns.

GARDEN & ORCHARD.

The Lambton County Fruit Belt.

As is the case in places along the shore of many of our large lakes, the land lying immediately along the south-east shore of Lake Huron is for some little distance inland level and very fertile. It does not gradually rise to higher land, but back some eighty or one hundred rods, some places more, others less, and extending for a considerable distance along the shore, the land rises abruptly to considerable height. In these flats below the hill, and even on top of the hill, extending for some distance, is to be found an area ideal for the growing of all kinds of fruit. One only needs to stand on top of this hill and look over the thousands of apple, plum and peach trees, with their immense sea of foliage hiding their season's load of rapidly-growing fruit, nestling east of the thin line of forest monarchs which separates them from the water's edge and breaks the winds which cross the lake, to be convinced that here is indeed a goodly heritage. Nearly all the soil, high land and flats, in this district is well suited to horticultural work, and well may Lambton be proud of its accomplishments in fruit-growing.

From widespread reports circulated earlier in the season, many were led to believe that tender fruits like the peach could not be successfully grown in this district, owing to the severity of the winter. Last winter was an extremely cold one, and some peach trees succumbed, but all those trees constitutionally strong and vigorous and properly ripened up are looking healthy and strong, although the peach crop is not going to be abundant this season.

Walter Rawlings is one of the extensive fruit-growers, who operates about twenty acres of orchard on the flats by the lake, and who hopes to about double this acreage in the near future. In his orchard, apple trees are planted forty feet apart each way, and peaches, plums and cherries, mostly the former, are used as fillers. A solid row of peach trees, twenty feet apart, is run between each two rows of apple trees in the row, making three of the smaller fruit trees to one of the apple trees. This orchard is thoroughly sprayed three times each year, and clean cultivation is adopted. Winter injury was comparatively light, and many of the peach trees show a good crop, while most of the plum trees are loaded, and a fair crop is borne by the cherries. Where a tree has been injured or killed by the hard winter, it has been one that was weakened down by an unusually heavy crop or by being split in the trunk, or by the water standing around it. The apple trees in the orchard are ten years old, and they have made great growth, many of them showing a great crop of fruit. Baldwins, Greenings and Golden Russets form a large part of the apple plantation. The peaches, plums and cherries serve to keep the land yielding a profitable crop, while the apple trees are growing to such a stage of maturity to warrant the removal of all fillers. Where the tender fruits succeed, the filler system is a very profitable method to follow.

Just a little to the south of the Rawlings orchard, and situated much the same, as regards soil and climatic conditions, are the wonderful orchards of D. Johnson, one of Canada's most noted fruit-growers. These orchards comprise some thirty-five acres of apple trees, now about forty years of age, twelve acres of five-year-old peach trees, and six acres of younger peach trees. The peach orchards are, of course, apple orchards

as well, the peach trees being used as fillers, following the same system as Mr. Rawlings.

The apple orchard is carrying a heavy set, as is the case with most of the apple trees in Lambton's fruit district. Considerable winter injury is to be seen in the lower limbs of many of the apple trees, attributable, Mr. Johnson believes, to the fact that, owing to continued clean cultivation year after year for some time, the trees have made too rapid growth, and were tender, not having borne fruit in proportion to the increase of growth. To overcome this difficulty, he intends to seed the orchard down to timothy and leave it in sod two years, when the crop will be cut down on it, the land broken and reseeded. Too much wood growth tends to produce a tender tree, not as productive as one which does not grow so fast. Mr. Johnson is a strong advocate of a cover crop for the peach orchard. He cited a case of a six-acre orchard of one of his neighbors, which had made a phenomenal growth last season, owing to continued good cultivation. Two acres of this was sown to a cover crop, and this two acres is now covered with a fine bunch of trees, while the four acres which had no cover crop was "hard hit" by the winter. There is nothing like clean cultivation to grow trees, but cover crops are essential to harden them off in preparation for winter. The heavy crop of peaches picked last year helped to ripen up the wood of the bearing trees, and most of the orchards look well, winter injury being not more than five per cent. If trees would stand last winter, they will stand any winter, and the peach industry is a sure thing in the lake district of Lambton.

Methods of spraying in the Johnson orchard



A Profitable Tree.

A five-year-old peach tree which in its four-year-old form produced 14 11-quart baskets of first-class peaches. This is a representative tree in the orchard of D. Johnson, Forest.

need not be discussed, as they are up-to-date in every particular, and the trees show the effect of good care.

Besides the 35 acres of apples on his own place, Mr. Johnson handled the same acreage or more of rented orchards. He operates his own evaporator, and sends his own traveller to the West to dispose of his crop. His pack is put up in barrels, and is recognized as the best, strict tab by a check system being kept on each and every employee.

Speaking of yields and growth of trees, Mr. Johnson has a Baldwin apple tree which in 1908 gave 26 barrels of apples which sold for from three to three and one-half dollars per barrel. He last year picked fourteen 11-quart baskets of peaches from a four-year-old tree, and they sold for 90 cents per basket, f.o.b., Forest. Four-year-old peach trees in his orchard measured twenty feet across the top. The soil, climate and cultivation must be ideal for fruit. It is not an uncommon occurrence for many of his apple trees to yield 20 barrels to a tree. The apple orchard is largely composed of the common winter varieties, and the varieties of peaches thought well of by the owner are Elberta, Fitzgerald, Kalamazoo, Crosby, Crawford, and a few Smock and others.

To permit of a freer air circulation in his orchards, Mr. Johnson purposes cutting down a large part of the natural forest wind break which now shields it on the west side. He is a firm believer in the value of air drainage in the production of high-class fruit.

Some of the world's best fruit is being produced in this section, and we look for a large increase in the acreage devoted to this industry in Lambton County within the next few years.

Advantages of Thinning.

The following dozen ways in which thinning fruit is an advantage to the grower were recently cited by R. M. Winslow, B. S. A., in the B. C. Saturday Sunset:

1. The average size of the fruit left on the trees is increased. This is the most obvious result of thinning. Trees overburdened with fruit produce a greater percentage of No. 2 apples. The increase in size of the remainder, after the first or second pickings of Bartlett pears is made is a striking instance of the increase in size when the number of fruits is reduced.
2. The fruit borne is more uniform in size and shape. On the overloaded tree there is much variation in size, and, especially where two or more fruits remain on a spur, they are variable in shape, as well. The fruits from the side blossoms of the cluster are in many varieties much different from those from the center blossom, usually being flatter in shape and having a considerably longer stem. Uniformity in size and shape is an important essential of commercial perfection.
3. The color is materially bettered, more uniform, and comes earlier. The remarkable increase in color which occurs when a first picking is made from heavily-bearing trees of even the winter varieties, such as Jonathan and Wagener, furnishes striking confirmation of this point. While color seems largely related to sunshine, it is a well-known fact that on a heavily-loaded tree the fruit has less color, which is less evenly distributed and more slowly acquired.
4. Thinning improves the quality. This is especially the case where the soil is deficient in moisture or plant food.

5. The fruit is freer of diseases and insect pests, because wormy apples, limb-bruised or diseased fruit of any kind can be removed at thinning time. On plums and peaches, in moist regions, fruits thinned so that no two touch when fully grown, are much freer of brown rot.

6. The removal of mis-shapen fruit lowers the percentage of low-grade fruit.

7. Thinning prevents premature dropping. A familiar instance is that of the McIntosh Red, which is especially liable to drop where two fruits are left on one spur. Premature dropping is quite largely due to the inability of the tree to supply moisture to an excessive crop.

8. The load of fruit is more evenly distributed, and this is a very important feature in preventing the breaking down of trees.

9. The cost of picking is reduced considerably, and the labor of picking is divided more evenly over the season. This is an important advantage where the supply of labor is deficient at picking time. Costs of grading and packing are also much lessened.

10. Less fertility is removed from the soil. A ton of apples takes out approximately 1.2 lbs. of nitrogen, 1-6 lb. potash, and 0.6 lb. of phosphoric acid. A ton of pears removes the same amount of nitrogen and about twice as much of the other elements. The seeds take the great bulk of these amounts, the pulp of the fruit taking but a small portion. As the number of seeds is roughly in proportion to the number of apples, and not to their size, the removal of fruits leaves a much greater supply of plant food for the balance of the crop, for the growth of the trees, and in the soil.

11. The tree is less liable to winter injury. The ripening of the heavy crop drains the vitality of the tree, so leaving it in poor shape to withstand the winter. Trees bearing moderate crops, for which there is an adequate supply of plant food and an adequate supply of moisture, have sufficient vitality to ripen the crop, and to ripen the fruit buds and new shoots, as well.

12. One of the most important results of thinning is that the trees will bear a larger and more uniform crop the following year. The tendency towards biennial bearing is materially reduced, much depending in this, however, on the variety.

For various reasons, then, thinning helps materially to secure the maximum duty from the tree. Mr. Winslow believes that thinning should be

commenced early, as soon as the crop can be determined. It requires considerable labor, but in the production of fancy fruit it pays to thin.

Niagara Fruit Notes.

The weather has continued to keep unusually cool for the season of the year, and fruit-ripening has been unusually retarded—so much so that many patches of Williams strawberries did not get their first picking until June 24th. Owing to this, to the small acreage of berries, and to the insatiable demand of the jam factories, the price has remained unusually high, and housewives over the Province will have to do with fewer berries or dip deep into their expense allowance. Cherries, currants and gooseberries are now coming in, and the prices are holding firm on these. In fact, there seems to be no outlook for cheap fruit this season. Raspberries, after having been heavily hit by the winter, are now suffering from drouth, and there is little chance of the grower having to take less than \$3.00 per crate at any time.

Three years ago, strawberries often were a glut on the market at 80 cents to \$1.00 per crate at shipping point. This season they barely touched \$2.00 at lowest price, and in most parts of the district \$2.10 to \$2.50 were the regular prices paid. It seems that these good prices will prevail for a few years, at least, for this year there has been no larger acreage planted than last year, although what has been planted has taken much better than last year. The increase in jam factories, with their annually increasing demand, has certainly been a wonderful boon to the fruit-growers of this district.

Insect pests and fungous diseases have not been very serious so far. Pear blight seems to be the most serious, and it is worse with us than it has been for three years. Careful and constant removal of all blighted twigs as soon as seen is keeping it in check, and is undoubtedly the main method of controlling the disease. Plum rot showed up to a considerable extent earlier in the season, but the late continued dry weather appears to have stopped its spread. Peach-leaf curl is very rarely seen, especially where any attempt at spraying was made, and pear scab is not showing to any extent as yet.

Pre-cooling of our fruits is a question that apparently has been thrust to the background in the opinion of our growers. This is owing, I think, to ill-advised efforts on the part of some of our well-meaning but too enthusiastic growers a year or two ago, but more so to the apathy of our fruit officials at Ottawa. Here is a question that was strongly put before them some time ago. Why is it they have taken no interest in it? If they do not believe the scheme feasible, why do they not say so and explain why? If they do believe it worthy of consideration, it is about time that they showed some interest. If our fruit-growers would move together, they might soon get a fruit division to push their interests, and this latter is the important "if" of the lot. The mere fact of the Government placing a sum of money on the estimates to bonus the building of the plant, without an investigation of the question, is wasteful and poor policy. There are preliminary investigations to be made, such as estimating the value of pre-cooling to the trade; the number of cars annually that might be counted on to be pre-cooled; the suitability of our cars and fruit-packages for pre-cooling; the interest or help that could be expected from the transportation companies. All these are preliminary and necessary questions for the investigation of which no great sum of money is needed, but which might place clearly before us the probable value of pre-cooling, and permit the Government to know if its bonus was to be wisely ventured.

W. R. D.

Lime-Sulphur Does Not Injure Trees or Fruit.

Investigations carried on by the Maine Experiment Station, and recorded in Bulletin 198 of that Station, showed that the calyx injury which was noted in 1910 on trees sprayed with lime-sulphur and lead arsenate was not due as much to the chemical action of the spray as to the lack of vigor in the trees. The superiority of lime-sulphur over Bordeaux mixture as a fungicide for susceptible varieties, as Ben Davis, was again demonstrated the past season, when conditions were most favorable for using Bordeaux. A large amount of Bordeaux injury occurred, whereas no spray injury was done to leaves or fruit on the lime-sulphur plots. Sunburn or sun-scald of the fruit, as the result of the unusual heat wave of last July, is shown to have been entirely independent of spray injury, and very largely due to insufficient protection of fruit by foliage. No injury to fruit or foliage resulted from the use of

the carbonic-acid-gas sprayer in making applications. The results did not indicate any definite relation of fruit russeting to the strength of the lime-sulphur used. Nothing appeared in the experiment which pointed to the chemical composition of the lime-sulphur, lead-arsenate combination as a factor relating to russeting of fruit. This bulletin is free to residents of Maine. To non-residents, the price is 10 cents.

THE FARM BULLETIN.

A Little Nonsense.

By Peter McArthur.

This morning I picked up one of the children's books—Hawthorne's Tanglewood Tales—and read again the myth of Antæus and the Pygmies. Somehow, it seemed to fit in with things I have been thinking about lately, and before I realized what I was doing, I was interpreting it in terms of the present day. It is wonderful how much of the world's wisdom and experience has found its way into the tales of children. You can find more in them than in learned histories, if you approach them in the proper spirit—the spirit of childhood—and they are scandalously full of satire and fun. We grown-ups have passed out of the house of childhood and have lost the key, but sometimes we can take a peep through the windows. This morning I had such a peep, and I haven't stopped chuckling yet. If I could only get you to see things from the particular angle at which I observed them, we might have a profitable laugh together. Anyway, I shall try—

"Provided that you weed your better judgments
Of all opinion that grows rank in them
That you are wise."

Be childlike with me for a little while, and you shall see what you shall see. Here is the beginning of the tale:

"A great while ago, when the world was full of wonders, there lived an earth-born Giant, named Antæus, and a million or more of curious little earth-born people who were called Pygmies. This Giant and these Pygmies being children of the same mother (that is to say, our good old Grandmother Earth), were all brethren, and dwelt together in a very friendly and affectionate manner."

At this point it suddenly dawned on me that the old myth is a curious bit of symbolism, and I fell to wondering how it would apply to life today. Let us assume that Antæus represents humanity at large, the common people—us. The Pygmies are the ruling class, the aristocrats—the privileged few, or whatever you choose to call them. Now let us go on with the tale.

"On their parts, the Pygmies loved Antæus with as much affection as their tiny hearts could hold. He was always ready to do them any good offices that lay in his power; as, for example, when they wanted a breeze to turn their windmills, the Giant would set all the sails a-going with the mere natural respiration of his lungs."

He was the producer, doing the work of the world, just as the common people are doing now, and the next sentence shows that he was like them in another respect.

"As for matters in general, he was wise enough to let them alone, and leave the Pygmies to manage their own affairs—which, after all, is about the best thing that great people can do for little ones."

His little friends, like all other small people, had a great opinion of their own importance, and used to assume quite a patronizing air towards the Giant.

"'Poor creature!' they said to one another. 'He has a very dull time of it, all by himself; and we ought not to grudge wasting a little of our precious time to amuse him. He is not half so bright as we are, to be sure, and, for that reason he needs us to look after his comfort and happiness. Let us be kind to the old fellow. Why, if Mother Earth had not been very kind to ourselves, we might all have been Giants, too.'"

The ancient teller of tales did not say how the Pygmies went about the task of improving the condition of their Giant, but we know how they do it to-day. They organize Boards of Trade to advise him, brighten him up with compulsory education, teach him scientific methods of breathing on their windmills, and, to cap all, they scold him for not producing more and for being the cause of the high cost of living. But things did not always run smoothly in the long distant past, any more than they do to-day.

"If the truth must be told, they were sometimes as troublesome to the Giant as a swarm of ants or mosquitoes, especially as they had a fondness for mischief, and liked to prick his skin with their little swords and lances, to see how thick and tough it was. But Antæus took it all kindly enough, although, once in a while, when he happened to be sleepy, he would grumble out a

peevish word of two, like the muttering of a tempest, and ask them to have done with their nonsense."

Nowadays the Pygmies tease us with politics and general elections and similar amusing things. But though they may be irritating, they do no more harm than their little ancestors did to Antæus.

"The Pygmies had but one thing to trouble them in the world. They were constantly at war with the cranes, and had always been so, ever since the long-lived Giant could remember. From time to time, very terrible battles had been fought, in which sometimes the little men won the victory, and sometimes the cranes."

Now, what are the cranes of our day? The corporations and trust and big interests, of course. Cranes were fond of water, and you all know how fond corporations are of watered stock. Besides, the corporations gobble up little people, just the same as the cranes gobbled up the Pygmies. It is really amazing how true to present conditions is the symbolism of some of the myths. But let us proceed:

"If Antæus observed that the battle was going hard against his little allies, he generally stopped laughing, and ran with mile-long strides to their assistance, flourishing his club aloft and shouting at the cranes, who quacked and croaked, and retreated as fast as they could. Then the Pygmy army would march homeward in triumph, attributing the victory entirely to their own valor and to the warlike skill and strategy of whomsoever happened to be captain-general; and for a tedious while afterwards nothing would be heard of but grand processions, and public banquets, and brilliant illuminations, and shows of wax-work, with likenesses of the distinguished officers, as small as life.

"In the above-described warfare, if a Pygmy chanced to pluck out a crane's tail-feather, it proved a very great feather in his cap. Once or twice, if you will believe me, a little man was made chief ruler of the nation for no other merit in the world than bringing home such a feather."

Could there be a finer description of a lot of politicians celebrating a victory that was really won by the power and good sense of the common people? They claim everything in sight, and the big sleepy giant simply grins and goes back to sleep again.

There is a lot more to the story, all of which could be interpreted into terms of the present day, but, as Lowell points out, nothing is more insufferable than to "trample the life out of a joke with the large, moist foot of a hippopotamus." There is something very like the "Back-to-the-land movement" in the fact that "Whenever this redoubtable Giant touched the ground, either with his hand, his foot, or any other part of his body, he grew stronger than ever he had been before." And is not the fate of the cities shown here? "As soon as Antæus was fairly off the earth, he began to lose the vigor which he had gained by touching it."

Although the myth holds true to conditions today in so many respects, there has been a very real change. The Pygmies have been breeding the cranes that are gobbling them up, and Antæus is now so well educated that he may claim the credit himself for any victories there may be. But the Giant is still as strong and as sleepy as ever, and the tame cranes are getting very troublesome. Besides gobbling the Pygmies, they are using their savage beaks on Antæus. If he should waken in a rage, there is no knowing what wild things he might do. I wonder if it wouldn't be possible to waken him by gentle tickling, so that he would get up laughing and drive away the cranes. I think it is worth trying.

There are many serious-minded people who will think that the only excuse for all this nonsense would be an edifying moral, but I refuse to draw one. Canadians are a nation of moralists, capable of extracting sermons from stones and morals from everything, and I think I may trust them to tag a satisfying lesson to this modernized myth.

Tankage as Feed for Hogs.

Tankage, meat meal, and other animal food products are valuable for supplying the protein in a feed ration for swine, and have recently attracted a good deal of attention from farmers because of the prevailing high price for other feed-stuffs.

Tankage has proved a satisfactory substitute for skim milk as an adjunct to corn. It is generally agreed among feeders that protein is the most important part of the feeding ration, as well as the most difficult to procure and the most expensive. Tankage, or digester tankage, as it is commonly called, is very rich in protein, varying from 10 to 60 per cent., according to the firm manufacturing it. It is made from the trimmings, inedible viscera, and other parts of the carcass, all of which are placed in the tanks and thoroughly cooked under pressure, so that the resulting product comes out sterile. The grease is removed from the surface, and the residue is dried out at a

high temperature, then ground, screened, and placed in 100-pound bags for shipment. Owing to the dryness of the product, there is practically no danger of fermentation taking place.

It having been claimed that the increased use of this material for hogs was the cause of the increase in the number of tuberculous hogs condemned at the abattoirs, inquiries were sent out by the writers to State experiment stations where tankage had been fed to hogs experimentally to see if any case of tuberculosis had developed as a result of such feeding. Experiments were also carried on by this Bureau along the same line. In no case could tuberculosis be shown to have arisen from the consumption of tankage, and it must therefore be absolved from all blame in the spread of this disease, and may be looked upon as a safe and valuable article of food for use in raising and fattening swine.—U. S. Dept. of Agriculture Bulletin, Tuberculosis of Hogs.

How the Forest Helps the Farm.

Whether forests increase the amount of precipitation within or near their limits, is still an open question, although there are indications that under certain conditions large, dense forest areas may have such an effect. At any rate, the water transpired by the foliage is certain, in some degree, to increase the relative humidity near the forest, and thereby increase directly or indirectly the water supplies in its neighborhood. This much we can assert; also, that, while extended plains and fields, heated by the sun, and hence giving rise to warm currents of air, have the tendency to prevent condensation of the passing moisture-bearing currents, forest areas, with their cooler, moister air strata, do not have such a tendency, and local showers may therefore become more frequent in their neighborhood. But, though to increase in the amount of rainfall may be secured by forest areas, the availability of whatever falls is increased for the locality by a well-kept and properly-located forest growth. The foliage, twigs and branches break the fall of the rain drops, and so does the litter of the forest floor, hence the soil under this cover is not compacted as in the open field, but kept loose and granular, so that the water can readily penetrate and percolate; the water thus reaches the ground more slowly, dripping gradually from the leaves, branches and trunks, and allowing more time for it to sink into the soil. This percolation is also made easier by the channels along the many roots. Similarly, on account of the open structure of the soil and the slower melting of the snow under a forest cover in spring, where it lies a fortnight to a month longer than in exposed positions, and melts with less waste from evaporation, the snow waters more fully penetrate the ground. Again, more snow is caught and preserved under the forest cover than on the wind-swept fields and prairies.

All these conditions operate together, with the result that larger amounts of the water sink into the forest soil, and to greater depth, than in the open fields. This moisture is conserved because of the reduced evaporation in the cool and still forest air, being protected from the two great moisture-dissipating agents, sun and wind. By these conditions alone, the water supplies available in the soil are increased from 50 to 60 per cent. over those available on the open field. Owing to these two causes, then, increased percolation and decreased evaporation, larger amounts of moisture become available to feed the springs and subsoil waters, and these become finally available to the farm, if the forest is located at a higher elevation than the field. The great importance of the subsoil water, especially, and the influence of forest areas upon it, has so far received too little attention and appreciation. It is the subsoil water that is capable of supplying the needed moisture in times of drouth.

Another means by which a forest belt becomes a conservator of moisture is its wind-breaking capacity, both velocity and temperature of winds being modified, and evaporation from the fields to the leeward reduced.

On the prairie, wind-swept every day and every hour, the farmer has learned to plant a wind-break around his buildings and orchards, often only a single row of trees, and finds even that a desirable shelter, tempering both the hot winds of summer and the cold blasts of winter. The fields he usually leaves unprotected, yet a wind-break around his crops to the windward would bring him increased yield, and a timber belt would be still more effective.

Not only is the temperature of the winds modified by passing over and through the shaded and cooler spaces of protecting timber belts disposed toward the windward and alternating with the fields, but their velocity is broken and moderated; and since, with reduced velocity the evaporative power of the wind is very greatly reduced, so more water is left available for crops. Every foot in height of a forest growth will protect one rod in distance, and several belts in

succession would probably greatly increase the effective distance.

On the sandy plains, where the winds are liable to blow the sand, shifting it hither and thither, a forest belt to the windward is the only means to keep the farm protected.

In the mountain and hill country the farms are apt to suffer from heavy rains washing away the soil. Where the tops and slopes are bared of their forest cover, the litter of the forest floor burnt up, the soil trampled and compacted by cattle and by the patter of the rain drops, the water cannot penetrate the soil readily, but is carried off superficially, especially when the soil is of clay and naturally compact. As a result, the waters, rushing over the surface down the hill, run together in rivulets and streams, and acquire such a force as to be able to move loose particles, and even stones; the ground becomes furrowed with gullies and runs; the fertile soil is washed away; the fields below are covered with silt; the roads are damaged; the water-courses tear their banks, and later run dry because the waters that should feed them by subterranean channels have been carried away in the flood.

The forest cover on the hill-tops and steep hillsides which are not fit for cultivation prevents this erosive action of the waters by the same influence by which it increases available water supplies. The important effects of a forest cover, then, are retention of larger quantities of water, and carrying them off under ground, and giving them up gradually, thus extending the time of their usefulness and preventing their destructive action.

In order to be thoroughly effective, the forest growth must be dense, and, especially, the forest floor must not be robbed of its accumulations of foliage, surface mulch and litter, or its underbrush by fire, nor must it be compacted by the trampling of cattle.

On the gentler slopes, which are devoted to cultivation, methods of underdraining, such as horizontal ditches, partly filled with stones and covered with soil, terracing and contour plowing, deep cultivation, sodding, and proper rotation of crops must be employed to prevent damage from surface waters.

All the benefits derived from the favorable influence of forest belts upon water conditions can be had, without losing any of the useful material that the forest produces. The forest grows to be cut and to be utilized; it is a crop to be harvested. It is a crop which, if properly managed, does not need to be replanted, it reproduces itself.

When once established, the axe, if properly guided by skillful hands, is the only tool necessary to cultivate it and to reproduce it. There is no necessity of planting, unless the wood-lot has been mismanaged.

The wood-lot, then, if properly managed, is not only the guardian of the farm, but it is the savings bank, from which fair interest can be annually drawn, utilizing for the purpose the poorest part of the farm. Nor does the wood-lot require much attention; it is to the farm what the work-basket is to the good housewife—a means with which to improve the odds and ends of time, especially during the winter, when other farm business is at a standstill.

It may be added that the material which the farmer can secure from the wood-lot, besides the other advantages recited above, is of far greater importance and value than is generally admitted.

Wire fences and coal fires are, no doubt, good substitutes, but they require ready cash, and often the distance of haulage makes them rather expensive. Presently, too, when the virgin woods have been still further culled of their valuable stores, the farmer who has preserved a sufficiently large and well-tended wood-lot will be able to derive a comfortable money revenue from it by supplying the market with wood of various kinds and sizes.

In regard to the manner in which the farmer should manage his wood-lots, with varying conditions, the methods would, of course, vary. In a general way, if he happens to have a virgin growth of mixed woods, the first care would be to improve the composition of the wood-lot by cutting out the less desirable kinds, the weeds of tree-growth and the poorly-grown trees which impede the development of more-deserving neighbors.

The wood thus cut he will use as fire-wood, or in any other way; and even if he could not use it at all, and had to burn it up, the operation would pay indirectly by leaving him a better crop. Then, he may use the rest of the crop, gradually cutting the trees as needed, but he must take care that the openings are not made too large, so that they can readily fill out with young growth from the seed of the remaining trees, and he must also pay attention to the young aftergrowth, giving it light as needed. Thus, without ever resorting to planting, he may harvest the old timber, and have a new crop taking its place, and perpetuate the wood-lot, without in any way curtailing his use of the same.

New York State, U. S. A. T. A. TEFPT.

Street Sweepings as a Fertilizer.

In a United States Department of Agriculture Bulletin on "City Street Sweepings as a Fertilizer," by J. J. Skinner and J. H. Beattie, a record of several experiments is given, and the following conclusion arrived at:

The application of street sweepings to soils will undoubtedly have a beneficial effect and be a factor in building up the land. The possible danger of a harmful effect from the oily substance which it contains must, however, be considered. If the oil could be economically extracted, this danger would be averted. The oil in the debris for the first year or two may not have any effect, but a continuous application to a field year after year may eventually impair its productiveness, unless through drainage or other natural agencies the oily material is drained off or changed. In some localities this is probably the case, as the use of such material is still said to be effective, although it has been applied for a number of years. No very definite field information on this point is, however, at hand. In this connection, attention must be called to the fact that the presence of an unusual amount of oil in such street sweepings has been the result of automobile traffic, and hence appears only in recent years as an appreciable factor in the use of street sweepings as fertilizer, and it is not improbable that the amount of oil will even further increase in the next few years.

Aside from the physiological action of the oily material here mentioned, there are probably other more strictly physical effects, due to the coating of soil particles and consequent interference with normal moisture movement and solubility of the mineral soil constituents.

Vegetable or animal oils undergo changes in soils under the influence of soil organisms, but so little is known concerning the action of organisms on the strictly hydro-carbon oils that no statement concerning the possible disappearance or change of this oil in street sweepings can be made.

Some 200 agricultural societies and several thousand individual members are this season engaging in the Ontario field-crop competitions, under the superintendence of J. Lockie Wilson, of the Department of Agriculture at Toronto. About 100 judges and others attended the meeting at the Agricultural College, Guelph, last week, to devise a more uniform system of scoring. The Dominion Government was, by resolution, memorialized to amend the Seed Control Act so that all bags or packages in which alfalfa seed is offered for sale will be plainly and indelibly marked with the name of the Province, State or country where the contents are grown.

Prof. S. A. Bedford, of the staff of the Manitoba Agricultural College, has been appointed Deputy Minister of Agriculture for that Province, as successor to J. J. Golden, who will hereafter devote himself exclusively to immigration work. Prior to his connection with the Provincial Agricultural College, Prof. Bedford rendered many years' valuable public service as Superintendent of the Experimental Farm at Brandon, and it would have been difficult to find a man for the deputyship possessing so practical and varied a knowledge of Western agriculture in all its phases.

Under what is known as the "Junior Imperial Migration League," 40 or 50 lusty boys, mostly from 18 to 21 years old, picked up in Old London, were landed in Toronto last week and distributed to Ontario farms. A number of men of means are backing the movement, which is aided by the Ontario Department of Agriculture.

Recent changes in Chinese political and commercial organization are increasing the sales of typewriting machines in that country which we used to designate glibly as "The Flowery Kingdom." The rifle and the typewriter are two standard accessories, or, should we say, modes of "civilization."

It is understood that the visit of Prof. G. E. Day, Live-stock Husbandry Department, Ontario Agricultural College, to Great Britain for the purchase of foundation stock for a Provincial herd of milking Shorthorns, has been deferred because of the recent outbreak of foot-and-mouth disease in England.

Prolonged drouth, which has been a cause of recent anxiety in the West, has been broken by fairly copious rains.

Eradication of Foot-and-Mouth Disease.

A commission, appointed by the President of the British Board of Agriculture to inquire into the circumstances of the outbreaks of foot-and-mouth disease during 1911, and to consider whether future methods can be adopted to prevent their recurrence, have recently issued their report, from which it appears that the disease has been present in Britain only in ten years out of the twenty-one years between 1892 and the present time, the total number of outbreaks in that period being 158; but, as 133 of these outbreaks occurred during the first ten years, and only 25 during the last eleven years of the period, it would appear that the disease is more under control now than formerly. The report shows that there is but little exact knowledge, even among veterinary experts, as to the nature, origin and means of transmission of the disease. The committee therefore feel that it is most important to obtain further information on the subject through the medium of special and thorough investigation, experiment and research.

Fortunately, Canada has, up to the present, suffered comparatively little loss from importation of this disease; so little, indeed, that it would appear that the climate or other conditions here were not favorable to its dissemination. Never-

theless, it is well to remember that prevention is better than cure, and all reasonable means should be adopted to avoid its introduction, even though our importers of stock are disappointed, owing to occasional rulings of the Department of Agriculture prohibiting importation of animals liable to contract a disease so easy of dissemination as is this.

Western Field Conditions.

Reports are very varied on the crop outlook in Manitoba and the other Western Provinces, but generally more encouraging because of recent rains, though the period of hot drouth will mean probably a reduction of 5 to 10 per cent. in considerable sections. The general consensus of opinion is that the grains will be shorter in the straw this year, and therefore lighter to harvest. There have been some severe local storms, like those at Regina and Saskatoon, but little destruction by hail or frost has yet occurred. The painful experiences of recent years teach the wisdom of adopting the safer methods of more diversified farming, and thoughtful men see that the real progress of agriculture is hindered and obscured by the "going in real estate" slogan one hears everywhere as new districts and town sites are exploited.

Apples from New Zealand.

"Some weeks ago," writes W. A. Beddoe, Canadian Trade Commissioner in New Zealand, "the Waitamata Fruit-growers' Association sent to Vancouver a sample consignment of apples. The intention is—if the shipment is a success—to follow it up with a carload lot. The head of this institution informed your Commissioner that last season fruit was shipped by a British-Columbian firm to them on consignment, with very satisfactory results. The New Zealand firm is now prepared to reciprocate, and send a carload on consignment. The Zealandia on this sailing also takes six cases of apples to Vancouver as a sample shipment."

Throughout Middlesex County, Ont., haying was in full swing last week, and though not as heavy as was once anticipated, is turning out a fair crop. Scattered rains have helped the timothy meadows, and heat and moisture combined have started the corn growing at an encouraging rate. Some fields of fall wheat which, as a rule, present a very fine appearance, are turning yellow; barley is in full head, and a fine crop; oats are heading, but rather short in straw in many cases, while potatoes, of which there appears to be a larger area than last year, are coming on well. The prospects are for a fast grain harvest.

GOSSIP.

CANADIAN OFFICIAL TESTS FOR HOLSTEINS FOR JUNE, 1912.

May Echo Verbelles (5320), at 8 years 30 days of age; 21.72 lbs. fat, equivalent to 27.15 lbs. butter; 702.2 lbs. milk.

Thirty-day record, at 8 years 30 days of age; 89.45 lbs. fat, equivalent to 111.81 lbs. butter; 2,587 lbs. milk. Owned by F. R. Mallory.

Aaggie Mercedes (7667), at 5 years 4 months 11 days of age; 21.63 lbs. fat, equivalent to 27.03 lbs. butter; 640.6 lbs. milk.

Fourteen-day record, at 5 years 4 months 11 days of age; 42.89 lbs. fat, equivalent to 43.61 lbs. butter; 1,158.7 lbs. milk. Owned by J. M. Van Patter.

Shadeland Beets De Kol (11675), at 5 years 10 months 1 day of age; 21.05 lbs. fat, equivalent to 26.31 lbs. butter; 583 lbs. milk. Owned by Colony Farm.

Eloise De Kol Netherland (12757), at 7 years 6 months 7 days of age; 20.02 lbs. fat, equivalent to 25.03 lbs. butter; 612.3 lbs. milk. Owned by H. Bollert.

Sena J. 2nd (17731), at 9 years 7 months 14 days of age; 19.02 lbs. fat, equivalent to 23.78 lbs. butter; 605.56 lbs. milk. Owned by Colony Farm.

Meta Clothilde P. (17728), at 2 years 28 days of age; 17.85 lbs. fat, equivalent to 22.31 lbs. butter; 686.21 lbs. milk. Owned by Colony Farm.

Cora Albert De Kol (6205), at 7 years 1 month 20 days of age; 17.61 lbs. fat, equivalent to 22.01 lbs. butter; 524.9 lbs. milk. Owned by Colony Farm.

Victoria Burke (7103), at 5 years 11 months 4 days of age; 16.76 lbs. fat, equivalent to 20.95 lbs. butter; 505.44 lbs. milk. Owned by Jas. Caskey.

Maud Holland De Kol (7478), at 5 years 10 months 22 days of age; 15.77 lbs. fat, equivalent to 19.71 lbs. butter; 465.2 lbs. milk. Owned by J. M. Van Patter.

Phocis De Kol (7009), at 11 years 1 month 22 days of age; 14.00 lbs. fat, equivalent to 17.50 lbs. butter; 420.6 lbs. milk. Owned by Wilber C. Prouse.

Violet 2nd (2425), at 13 years 9 months 12 days of age; 13.77 lbs. fat, equivalent to 17.21 lbs. butter; 462.9 lbs. milk. Owned by George Winter.

Lady Pietje Canary (9546), at 4 years 11 months 4 days of age; 26.98 lbs. fat, equivalent to 33.72 lbs. butter; 419.9 lbs. milk. Owned by J. M. Steves.

Ykema Calamity Mercedes (14617), at 4 years 15 days of age; 13.64 lbs. fat, equivalent to 17.05 lbs. butter; 423 lbs. milk.

Fourteen-day record, 26.76 lbs. fat, equivalent to 33.45 lbs. butter; 881 lbs. milk. Owned by J. M. Van Patter.

Duchess Calamity Mercedes (14616), at 4 years 1 month 1 day of age; 13.05 lbs. fat, equivalent to 16.31 lbs. butter; 411.7 lbs. milk.

Fourteen-day record, at 4 years 1 month 1 day of age; 25.23 lbs. fat, equivalent to 31.53 lbs. butter; 798.4 lbs. milk. Owned by J. M. Van Patter.

Wadmantje Canary (17736), at 3 years 2 months 28 days of age; 19.2 lbs. fat, equivalent to 24 lbs. butter; 531.44 lbs. milk.

Thirty-day record, at 3 years 2 months 28 days of age; 79.22 lbs. fat, equivalent

to 99.02 lbs. butter; 2,291.46 lbs. milk. Owned by Colony Farm.

Grebeega 2nd (11476), at 3 years 10 months of age; 15.64 lbs. fat, equivalent to 19.55 lbs. butter; 480.99 lbs. milk. Owned by Colony Farm.

Celia De Kol Posch (14882), at 3 years 3 months 16 days of age; 14.17 lbs. fat, equivalent to 17.72 lbs. butter; 430.7 lbs. milk.

Thirty-day record, at 3 years 3 months 16 days of age; 59.06 lbs. fat, equivalent to 73.83 lbs. butter; 1,797.9 lbs. milk. Owned by Colony Farm.

Lakeside Melba Alban De Kol (14883), at 3 years 3 months 15 days of age; 13.99 lbs. fat, equivalent to 17.49 lbs. butter; 515 lbs. milk. Owned by Colony Farm.

Arrawanah Posch 2nd (11324), at 3 years 9 months 5 days of age; 12.55 lbs. fat, equivalent to 15.69 lbs. butter; 343.4 lbs. milk.

Fourteen-day record, at 3 years 9 months 5 days of age; 24.8 lbs. fat, equivalent to 31 lbs. butter; 680.8 lbs. milk. Owned by J. M. Van Patter.

Della Sarcastic Lad's Lovelia (12395), at 3 years 10 months 8 days of age; 11.91 lbs. fat, equivalent to 14.89 lbs. butter; 421.25 lbs. milk. Owned by David H. McPherson.

Lakeside Model Pauline (14884), at 2 years 11 months 26 days of age; 16.21 lbs. fat, equivalent to 20.27 lbs. butter; 471.5 lbs. milk.

Thirty-day record, at 2 years 11 months 26 days of age; 66.01 lbs. fat, equivalent to 82.52 lbs. butter; 1,862 lbs. milk. Owned by Colony Farm.

Lawncrest May Echo Posch (15023), at 2 years 2 months 7 days of age; 14.09 lbs. fat, equivalent to 17.61 lbs. butter; 487.8 lbs. milk.

Thirty-day record, at 2 years 2 months 7 days of age; 54.97 lbs. fat, equivalent to 68.71 lbs. butter; 1,970.6 lbs. milk. Owned by F. R. Mallory.

Dolly Hengerveld De Kol (15104), at 2 years 6 days of age; 13.75 lbs. fat, equivalent to 17.19 lbs. butter; 385.94 lbs. milk. Owned by James A. Caskey.

Lady Jongste (14026), at 2 years 1 month 5 days of age; 12.55 lbs. fat, equivalent to 15.69 lbs. butter; 343.6 lbs. milk. Owned by J. M. Van Patter.

Aaggie De Kol Sarcastic (12436), at 2 years 11 months 20 days of age; 12.24 lbs. fat, equivalent to 15.30 lbs. butter; 325.6 lbs. milk. Owned by J. M. Van Patter.

Homestead De Kol Colantha (12683), at 2 years 4 months 9 days of age; 11.18 lbs. fat, equivalent to 13.97 lbs. butter; 319.73 lbs. milk. Owned by Colony Farm.

Lady Mercedes Sarcastic (15369), at 2 years 3 months 1 day of age; 10.61 lbs. fat, equivalent to 13.26 lbs. butter; 345.7 lbs. milk. Owned by J. M. Van Patter.

Daisy Korndyke Segis (14179), at 2 years 3 months 10 days of age; 10.03 lbs. fat, equivalent to 12.53 lbs. butter; 305.5 lbs. milk. Owned by Colony Farm.

Aaggie Sarcastic (15371), at 2 years 1 month 6 days of age; 9.69 lbs. fat, equivalent to 12.11 lbs. butter; 325.4 lbs. milk. Owned by J. M. Van Patter.

Corinne Jane Houwtje (16945), at 2 years 2 months 21 days of age; 8.96 lbs. fat, equivalent to 11.20 lbs. butter; 272.45 lbs. milk. Owned by Wilber C. Prouse.

Marguerite Brook De Kol (15133), at 1 year 11 months of age; 8.8 lbs. fat, equivalent to 11 lbs. butter; 245.15 lbs. milk. Owned by W. C. Prouse.

QUESTIONS AND ANSWERS.

1st.—Questions asked by bona-fide subscribers to "The Farmer's Advocate" are answered in this department free.

2nd.—Questions should be clearly stated and plainly written, on one side of the paper only, and must be accompanied by the full name and address of the writer.

3rd.—In Veterinary questions the symptoms especially must be fully and clearly stated, otherwise satisfactory replies cannot be given.

4th.—When a reply by mail is required to urgent veterinary or legal enquiries, \$1.00 must be enclosed.

Veterinary.

NAVICULAR DISEASE, ETC.

1. Five-year-old horse advances one fore foot to relieve weight upon it. He rests foot on toe. The foot is smaller than its fellow, and the muscles of breast and shoulder are shrunken some. He goes stiff in the morning.

2. What will cure quarter crack?

Ans.—1. This is a case of navicular disease, usually caused by driving on hard roads or standing too much on dry, hard floors, or possibly by sprain. In most well-marked cases it is incurable, but the symptoms can be lessened by long rest and repeatedly blistering the coronet. Clip the hair off for two inches high all around the hoof. Tie so that he cannot bite the parts. Rub well with a blister made of 2 drams each of biniodide of mercury and cantharides, mixed with 2 ounces vaseline. Rub well again the second day, and the third day apply sweet oil and turn in loose stall or on pasture. Oil every day until the scale comes off. Then blister again, and after this blister once every month so long as you can give him rest. If obliged to work him, shoe with rubber pads.

2. Get the blacksmith to pare well down on top of crack; rasp away the bottom of the wall beneath the crack so that it will not rest upon the shoe. Shoe with a bar shoe, giving good frog pressure. Have the shoe removed every four weeks.

Miscellaneous.

ONTARIO VETERINARY COLLEGE.

1. To whom should I write for information to the Ontario Veterinary College?

2. Is there any other Veterinary College in Ontario besides the Toronto college?

Ans.—1. Dr. E. A. A. Grange, Principal, Ontario Veterinary College, Toronto, Ont.

2. No; at least none of any importance.

ENGINEER'S PAPERS.

Could you tell me where I should apply for the papers to run an engine in the West?

Ans.—This depends upon the Province in which you wish to work. Apply to the Minister of Agriculture of whatever Province you wish to operate in.

COLT WITH WEAK LEGS.

My mare foaled on 26th May. The foal was weak and could not get up. We helped it to suck for two weeks till the mare dried. Since, we have fed it on cow's milk. It is bright and hearty, and grazes, but its legs do not strengthen. The shoulders seem loose. We sling it two or three times a day. The stifle and one front leg, from the knee down, are slightly swollen, and the back tendon in that leg is short. Can any medicine be given, or the leg supported in any way to help it to strengthen?

Ans.—As the colt is progressing, and is commencing to graze, it might be better to encourage him to make as much use as possible of his limbs. With use, they should gain strength. Doping a young colt is usually unsatisfactory. Allow nature a chance, and if in a reasonable time improvement is not noticeable, call in your veterinarian.

SWEET CLOVER—THORN HEDGE.

1. Inclosed you will find what I suppose is a weed. Will you kindly tell me what it is, and if it is bad for spreading?

2. When is the best time for destroying a thorn hedge?

Ans.—1. This is the yellow-flowering sweet clover (*Melilotus officinalis*). It is considered a weed by some, and a profitable fodder plant by others. Would not allow it to become thick. All that is necessary is cutting to prevent seeding, or plowing will put an end to it.

2. In early spring, when the land is soft and wet, such hedges may be torn out by the roots with a good team of horses and a logging chain. They might be girdled now to kill the trees, and they would pull more easily next spring.

TROUBLE WITH PIGS.

In glancing over your issue of June 27, 1912, I saw inquiries from R. I., and answer, re pigs with weak shoulders. If you permit me, I would say a few words regarding the above-named trouble. I believe the trouble comes from the pigs getting damp or wet from the alfalfa, then being exposed to the sun, which burned or scalded, and which is painful to the pig. Young pigs should not be suddenly taken from under cover and exposed to the hot sun. Rub with sweet oil, or grease without salt in it, and put under shade.

WM. McADOO.

[Ans.—While these suggestions are quite in order, being sound and all right, it may be mentioned that our inquirer in this particular case had described no symptom of external soreness which greasing would benefit. The precautions advised are, nevertheless, good ones.—Ed.]

MARKETS.

Toronto.

At West Toronto, on Monday, July 8, receipts numbered 100 cars, comprising 1,902 cattle, 516 hogs, 580 sheep, 122 calves, 55 horses; quality of cattle fair; trade steady for exporters; butchers' slow. Exporters, \$7.80 to \$8.10; choice butchers', \$7 to \$7.50; medium, \$6 to \$6.75; common, \$5 to \$6; cows, \$4.50 to \$5; milkers, \$50 to \$75; veal calves, \$7.75 to \$8.25; light sheep, \$4.50 to \$5; heavy sheep and culls, \$3 to \$3.75; spring lambs, \$3.25 to \$3.65. Hogs, fed and watered, \$7.85, and \$7.50 f. o. b. cars.

REVIEW OF LAST WEEK'S MARKETS

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

	City.	Union.	Total.
Cars	122	228	350
Cattle	1,249	3,588	4,837
Hogs	1,754	3,156	4,910
Sheep	1,299	1,266	2,565
Calves	696	381	1,027
Horses	4	102	106

The total receipts of live stock at the two markets for the corresponding week of 1911 were as follows:

	City.	Union.	Total.
Cars	188	274	462
Cattle	2,529	4,646	7,175
Hogs	2,927	2,989	5,916
Sheep	1,480	392	1,872
Calves	622	124	746
Horses	9	23	32

An outstanding feature of the comparison is the large decrease in cattle. While the summary shows a decrease of 112 cars, of this amount of stock, cattle numbered 2,888 less than a year ago. Hogs showed a decrease of 1,006. Receipts of sheep increased 693 head, and calves also increased by 281. The horse receipts were 7 above those of the same week last year.

Beginning early last week with a good supply of live stock, the market showed a decline which continued throughout the week. It was a "drag" to dispose of some of the stock, and prices were lower accordingly. The combined market for the week showed a big slump, trade towards the end being listless, and buyers few. There was a scarcity of high-class cattle, and the commoner grades held away, which had a tendency to lower prices. The warm weather also had an effect upon prices.

Exporters.—Few exporters were offered. The previous week exhausted the supply of distillery-fed exporters, and of the grass-fed cattle few offered were suitable for export. Prices were lower, at \$7.25 to \$7.50.

Butchers.—Few choice butchers' cattle were offered. Good were quoted at \$6.50 to \$7.65; medium, \$6 to \$6.50; common, \$4 to \$5; cows, from \$5.50 for choicest, down to \$3.50 for common; canners', \$1.75 to \$2.25; bulls, \$5.25 to \$6.25 for choicest, down to \$4 for lights and roughs.

Milkers and Springers.—Only a slight run was forward, and a few reached the prices of the previous week. From \$50 to \$65 was the range, with an odd new-milk cow going as high as \$75.

Veal Calves.—The price of calves held up well, the best selling from \$3.25 to \$8.50; medium, \$7 to \$7.75; commoner grades, \$4 to \$5.

Sheep and Lambs.—Light ewes, \$4.50 to \$5; heavy ewes, \$3.50 to \$3.75; lambs, \$8 to \$8.50 for choice, and \$6.50 to \$7.75 for common; rams, \$3.25 to \$4.

Hogs.—Prices dropped again, and were quoted at \$3 to \$8.10, a decline of from 25c. to 40c. from the previous week. At country points, \$7.65 f. o. b., was the highest.

Horses.—Prices for the best horses of the various types hold firm. Drafters, \$225 to \$275; general-purpose, \$175 to \$250; express horses, \$200 to \$275; drivers, \$100 to \$150; workers, \$30 to \$100. These prices are for the choicest animals of each class.

BREADSTUFFS.

Wheat.—No. 2 red, white or mixed, \$1.05 to \$1.06, outside points. Manitoba No. 1 northern, \$1.14; No. 2

northern, \$1.11; No. 3 northern, \$1.07, track, lake ports. Oats—Canadian Western oats extra No. 1 feed, 48c.; No. 1 feed, 47c., track, lake ports. Ontario No. 2, 48c. to 49c.; No. 3, 47c. to 48c., outside points; No. 2, 50c. to 51c., Toronto freight. Rye—No. 2, 85c. per bushel, outside points. Buckwheat—\$1.25 per bushel, outside points. Peas—No. 2, \$1.20 to \$1.25 per bushel, outside points. Barley—For malting, 87c. to 88c. (47-lb. test); feed, 60c. to 65c., outside points. Corn—No. 3 yellow, 79c., track, bay ports. Flour—Winter-wheat flour, \$4.25, seaboard. Manitoba patents—Prices at Toronto are: First patents, \$5.70; second patents, \$5.20; strong bakers', \$5 in jute; cotton, 10c. extra.

HAY AND MILLFEED.

Hay.—Baled, car lots, track, Toronto, per ton, \$15 to \$17.

Straw.—Baled, car lots, track, Toronto, per ton, \$10 to \$10.50.

Bran.—Manitoba, \$23 per ton; shorts, \$26 per ton; Ontario bran, \$24 per ton, in bags; shorts, \$27 per ton, car lots, track, Toronto.

COUNTRY PRODUCE.

Butter.—Creamery pound rolls, 27c. to 28c.; creamery solids, 27c.; separator dairy, 28c. to 29c.; store lots, 21c. to 22c.

Eggs.—New-laid, 24c. dozen.

Cheese.—New, per lb., 15c.

Poultry.—Dressed turkeys, per lb., 18c. to 21c.; last year's chickens, per lb., 16c. to 18c.; spring chickens, per lb., 40c. to 45c.; fowl, per lb., 14c. to 15c.

Potatoes.—Ontario potatoes, car lots, per bag, \$1.40; New Brunswick Delawares, per bag, \$1.50; new potatoes, per barrel, \$4.

Beans.—\$3 for hand-picked; \$2.65 to \$2.75 for primes.

FRUITS AND VEGETABLES.

The fruit market was comparatively quiet. Strawberries were less plentiful towards the end of the week, and the price advanced. There is likely to be a scarcity of raspberries also. Strawberries, 11c. to 13c. per box; sweet cherries, \$1.50 per basket; sour cherries, 75c. per basket; gooseberries, \$1 per 11-quart basket; new cabbage, per crate, \$2.40 to \$2.60; beans, per hamper, \$2.50; cantaloupes, \$4 to \$5 per case; green peas, per basket, 85c.; water-melons, 45c. to 55c. each; spinach, 75c. to \$1; Bermuda onions, per box, \$1.75 to \$2; pineapples, per case, \$3.25 to \$3.50; lemons, per case, \$4 to \$4.75; oranges, navel, \$3.50 to \$4; bananas, \$1.75 to \$2 per bunch.

HIDES AND SKINS.

E. T. Carter & Co., 85 East Front street, have been paying the following prices: No. 1 inspected steers and cows, 18c.; No. 2 inspected steers and cows, 12c.; No. 3 inspected steers, cows and bulls, 11c.; country hides, cured, 11c. to 12c.; country hides, green, 10c. to 11c.; calf skins, per lb., 13c. to 17c.; lamb skins and pelts, 35c. to 40c.; horse hides, No. 1, \$3.25; horse hair, per lb., 34c.; tallow, No. 1, per lb., 5c. to 6c.

WOOL.

Unwashed, coarse, 12c.; unwashed, fine, 13c.; washed, coarse, 18c.; washed, fine, 21c.; rejects, 15c.

Chicago.

Cattle.—Beeves, \$5.70 to \$9.60; Texas steers, \$5.80 to \$7.40; Western steers, \$6.25 to \$7.70; stockers and feeders, \$4 to \$6.50; cows and heifers, \$2.70 to \$8.10; calves, \$6 to \$9.

Hogs.—Light, \$7.10 to \$7.60; mixed, \$7.05 to \$7.62; heavy, \$6.95 to \$7.60; rough, \$6.05 to \$7.15; pigs, \$5.25 to \$6.80.

Sheep.—Native, \$3.25 to \$5.35; Western, \$3.75 to \$5.35; yearlings, \$5.75 to \$6.75; lambs, native, \$5.75 to \$8; Western, \$5 to \$8.

Buffalo.

Cattle.—Prime steers, \$8.50 to \$9; butchers' grades, \$4 to \$7.85.

Calves.—Cull to choice, \$6 to \$9.

Sheep and Lambs.—Choice lambs, \$7.50 to \$7.75; cull to fair, \$5 to \$7; yearlings, \$6 to \$6.50; sheep, \$2 to \$5.

Hogs.—Yorkers, \$7.70 to \$7.90; pigs, \$7.25 to \$7.40; mixed, \$7.30 to \$7.95; heavy, \$7.95; roughs, \$6.50 to \$6.70; stags, \$5 to \$5.50.

Montreal.

Live Stock.—On the local market very little change took place. The weather being hotter, the demand for live stock of various kinds showed less keenness, and in some cases there was a slight lowering of prices. This was the case with bulls, which were 1c. per lb. less. Cows also sold at a lower price, the supply being in excess of requirements. There was a fair demand from Quebec butchers. The highest price paid for cattle was 8c. per lb., the range of choice stock being 8c. to 8c. From this, the market ranged down to 7c. for fine, good being about 6c. to 7c., and medium 5c. to 6c. Common stock sold as low as 4c. a pound. Sheep were in good demand, and offerings were light. Mixed lots of sheep and lambs sold at 5c. per lb.; ewe sheep were 4c. to 5c., and bucks and culls were 4c., while lambs were 5c. to 6c. per lb. Calves were in moderate demand, at \$1.50 to \$8 per head. Hogs were also lower, being 8c. to 9c. per lb. for selects, weighed off cars.

Horses.—The demand for horses keeps up, and there was as great a dearth as ever of fine, heavy draft stock. Quotations were as follows: Heavy draft horses, weighing from 1,500 to 1,700 lbs., \$300 to \$375; light draft horses, 1,400 to 1,500 lbs., \$225 to \$300; light horses, 1,000 to 1,100 lbs., \$125 to \$200, and inferior, old, or broken-down stock, \$75 to \$100. Choice driving and saddle horses, \$350 to \$500 each.

Dressed Hogs.—Fresh-killed, abattoir-dressed hogs, showed no change last week in price, notwithstanding the easier tone in live stock. Prices were still 12c. to 12c. per lb. for the finest stock.

Potatoes.—The market for potatoes was generally easier. This was due, no doubt, to two causes, namely, the warm weather and the cheapening of American imported stock, and a fairly liberal supply. Prices were \$1.50 and \$1.60 per 90 lbs., car lots, on track, Montreal, this being for Green Mountains. Other qualities were obtainable below these figures, and jobbing prices were about 25c. more.

Honey and Syrup.—Maple syrup, 7c. to 7c. per lb. in wood; tins, 70c. to 75c. Sugar, 9c. to 10c. per lb. Honey was steady, at 10c. to 11c. per lb. for white comb, and 8c. to 8c. for extracted. Dark comb, 7c. to 8c., and dark extracted, 7c. to 8c.

Eggs.—The hotter weather does not improve the quality. Prices continued steady, however, being 25c. for round lots of selected stock; 22c. for straight stock, and 15c. for secondary. In single cases, the price was 1c. more.

Butter.—The market for butter held firm. Prices for choice, fresh-made Townships were in the vicinity of 25c. to 25c., while fine stock was about 24c. to 24c., seconds selling at 24c. to 24c. per lb.; dairy butter, 22c. to 22c. On Monday, 8th, an advance on country boards was reflected here, quotations being strong, at 25c. to 26c.

Cheese.—White cheese was worth about 1c. less than colored. Finest Western colored cheese steady, at 13c. to 13c., here; Townships, 12c. to 12c., and Quebecs, 12c. to 12c. Prices on Monday, 8th, were fractionally below these quotations. Shipments are larger at the moment than a year ago, having been 125,000 packages during the week, and bringing the total shipments since the opening of navigation to 368,000 boxes, as against 384,000 for the corresponding period of last year.

Grain.—The tendency of the market for oats was downwards. No. 2 Canadian Western oats were quoted at 51c. per bushel, in car lots, ex store, Montreal; extra No. 1 feed, 50c.; No. 1 feed, 49c.; No. 3 Canadian Western oats, 49c.

Flour.—The market was steady, at \$6.10 per barrel for Manitoba spring-wheat patents, first; \$5.60 for seconds; strong bakers, \$5.40. Ontario winter-wheat patents, \$5.40 to \$5.50 per barrel, and straight rollers, \$4.95 to \$5; in bags, 30c. less.

Feed.—The market was lower, being \$21 per ton, in bags, for bran; \$26 for shorts; \$27 to \$28 for middlings; \$32 to \$34 for pure mouille, and \$30 to \$31 for mixed.

Hay.—This commodity declines slightly from week to week. No. 1 pressed hay,

car lots, Montreal, \$20 to \$21 per ton; No. 2 extra, \$18 to \$19; No. 2, good, \$17 to \$17.50; No. 3, \$16 to \$16.50, and clover mixed, \$15 to \$15.50.

Cheese Markets.

Canton, N. Y., 14c.; butter, 27c.; Watertown, N. Y., 14c.; Campbellford, Ont., 12 9-16c. to 12c.; Stirling, Ont., 12 7-16c. to 12c.; Woodstock, Ont., 12c.; Madoc, Ont., 12c. to 12 9-16c.; Peterboro, Ont., 12c. to 12 11-16c.; Alexandria, Ont., 12c.; Vankleek Hill, Ont., 12c. to 12c.; Kingston, Ont., 12c. to 12 9-16c.; Brockville, Ont., 12c. to 12 11-16c.; Ottawa, Ont., 12c.; London, Ont., 12 11-16c.

British Cattle Market.

John Rogers & Co., Liverpool, cable an increase on price of 1c. per pound for the best cattle, and distillers making from 16c. to 16c. per pound.

GOSSIP.

At the fourth annual auction sale made by the Empire State and New England Ayrshire Clubs, at Syracuse, N. Y., June 25th and 26th, the importation made by F. S. Peer brought excellent prices, the top for a bull being \$1,300, and for a heifer \$1,600.

The recent death is announced of N. P. Clarke, of St. Cloud, Minn., the noted breeder of Clydesdales, Shorthorns and Galloways. Mr. Clarke was an exceedingly successful breeder and exhibitor of the classes of stock named. He had been in feeble health for a long time.

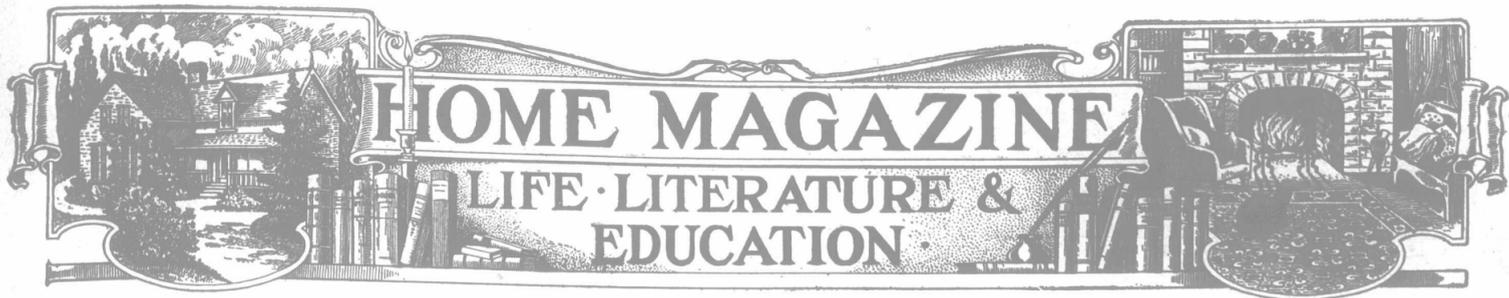
Henry Arkell & Son, importers and breeders of Oxford and Hampshire sheep, and Shorthorn cattle, Arkell, Ont., write that everything looks well at Farnham, their beautiful stock farm. Any person requiring a good flock-header of either of the breeds kept, would do well to call at the farm, or write for particulars. Yearling rams or ram lambs, from imported champion rams, are on hand in large numbers, giving a choice selection. A few choice yearling ewes and ewe lambs, and a beautiful lot of field yearling ewes are also offered. See the advertisement elsewhere in this issue.

The celebrated cow, Evergreen March, owned by G. W. Clemons, Secretary of the Holstein-Friesian Association of Canada, is making a truly remarkable record as a long-distance producer of milk and butter-fat. Percy Clemons, who has had charge of her during her performance, informs "The Farmer's Advocate" that her approximate record for three successive lactation periods, covering 38 months, is 60,250 pounds of milk and 2,160 pounds of butter-fat. Strict account was not kept of her production after commencing to dry her off each year, but the total is said to be pretty nearly correct. She is milking ninety pounds daily now. Her best year's work was 26,107 1/2 pounds milk, and 904 pounds fat. Mr. Clemons, Jr., also announces the birth on June 29th, of a beautiful filly, by Barongale, 4, 2.11 1/2, dam Maud Powell, by Klatawah, 3, 2.05 1/2, pacing; second dam, Belle Vara, 2.08 1/2, dam of Bellevara Boy, 2.10; Luther Burbanks, 2.21 1/2; Orphant Annie, 2, 2.29 1/2, now three, who worked at Cleveland lately in 2.14, and for whom an offer of \$5,000 was refused.

TRADE TOPIC.

If you have a horse with any disease, write the Troy Chemical Co., Binghamton, N. Y., giving a full description of the case, and they will advise what to do. See their advertisement in another column.

Two men were hotly discussing the merits of a book. Finally one of them, himself an author, said to the other: "No, John, you can't appreciate it. You never wrote a book yourself." "No," retorted John, "and I never laid an egg, but I'm a better judge of an omelet than any hen in the State."



Gainsborough.

[With acknowledgments to biographies by Sir Ronald Gower, Sir William Martin Conway, Encyclopædia Britannica, etc.]

To mention Sir Joshua Reynolds almost necessitates that one mention Thomas Gainsborough in the next breath. All but together they stand—indeed, some art critics would place them side by side—as the greatest masters of the English school of portraiture, while in landscape painting, which Reynolds did not care to touch, Gainsborough holds a place but little less eminent.

Gainsborough was born in 1727, at Sudbury, the son of a crape-maker, and, like the majority of artists, gave evidence of his talent at a very early age. At ten, it is recorded, he "had sketched every fine tree and picturesque cottage" within reach of his home, and had filled not only the blank spaces of his own school-books with caricatures of the school-master, but also those of his school-mates, who, for such good service, gave return by working his arithmetic problems for him. Upon one occasion, while sitting in an orchard, pencil in hand, a thief placed his hands on top of the wall and drew himself above it for a moment. In that brief space of time young Gainsborough sketched the man's features, painting them the same night on a bit of board with such fidelity that the man was recognized and arrested. This picture he called "Tom Peartree."

No check appears to have been placed upon the development of the lad's talent. Indeed, his mother, who herself excelled in flower-painting, encouraged him in every possible way, and many were the sketching tours which he made about the wooded hills and tranquil valleys of the neighborhood. "Suffolk," he often said in later life, "made me an artist," but the credit cannot wholly be laid to that beautiful district. There was, indeed, a streak of unusual cleverness in the whole Gainsborough family. One of his brothers invented the sun-dial, and anticipated Watt in the conception of a steam engine; another tried to invent flying machines; hence it is not surprising to find that young Thomas was also possessed of an originality that must needs find expression, and he, as it chanced, became the most illustrious of all.

At fourteen he was sent up to London to learn engraving, and there, before long, he obtained admission to St. Martin's Lane Academy. At eighteen he returned to Sudbury, "uncommonly good-looking, with refined features and singularly brilliant eyes,"—tall, fair, handsome, generous, impulsive, a lively talker, quick at repartee,—in short, just such a youth as might easily win the heart of pretty Margaret Burr, sister of one of the workmen in his father's crape-shop, to whom he was married before two years more had passed.

The marriage proved to be a very happy one. Margaret was not only pretty, but of unusually sweet disposition. Moreover, she was the recipient of a life annuity of £200, an oiling to the wheels of the domestic machinery which was by no means to be despised. There was, as a matter of fact, a mystery about the birth of Miss Burr, and popular report had it that she was really the daughter of an exiled prince,—hence the £200 annuity.

After living in Sudbury for six months, the young couple moved to Ipswich and started housekeeping in a small house that cost but £6 a year rental, where Gainsborough set up as portrait painter. His love for nature, however, took him often to the fields, and many a sketching tour did he make along the windings of the Orwell with his friend Kirby (afterwards drawing-master to the Prince of Wales, and President of the Society

of Artists). He loved the peasantry, and loved to paint them in their usual environment, and many a fine canvas still remains as a result of these rambles, for Gainsborough "gave poetry to the humblest of rustic scenes." A fine favorite he was, too, among these simple, kindly people, for whom he delighted to sing and play and crack his merry jokes. "I have seen the aged features of the peasantry lit up," wrote a contemporary, "with a grateful recollection of his many acts of kindness and benevolence."

A happy, sunny nature, indeed, was Gainsborough's. He was always the first in fun and merry-making, and an ancient inn is still shown in Ipswich in which his wig was often snatched off in the nonsense of merry revels.

But two daughters had been added to the family, and it was necessary to earn more money; accordingly, the Gainsboroughs removed, in 1759, to Bath,

whom those bells so often rang, have sunk into oblivion.

With the removal to Bath, however, the brighter side of the wheel of fortune turned for Gainsborough. It was impossible that a portrait-painter of such wonderful genius as his should long remain unnoticed. In 1760, a Society of Artists was formed, the precursor of the Royal Academy, and to its second exhibit he sent a full-length portrait of a gentleman "who passed his life in seeking lucrative places and courting rich widows." So excellent was this portrait that the artist leaped at once to popularity, and before many days had passed his studio was thronged with fashionable folk willing to pay him almost any price for equally poetical representations of themselves. Nor did those of stronger mental calibre stand aloof, for among those who sat to him were General Wolfe, Sheridan and Burke, the authors Sterne and Richardson, and

was paid. "There can be but few artistic possessions," says Gower, "which are more to be envied—if the falling is permissible—than one of these beautiful landscape paintings by Gainsborough. Such pictures are a ceaseless joy to those who value the highest expression that English art has attained."

While at Bath, Gainsborough was chosen as one of the thirty-six original members of the Royal Academy. He also practiced music, and learned to play the harp, hautboy, viol-di-gamba, and violoncello. Indeed, at all times music was a passion with him, and it is quite likely that had he not found expression in art, he would have become known as one of the world's eminent musicians.

.....

In 1774, Gainsborough fell out with Governor Thicknesse, and on the impulse of the moment left Bath and settled in London. Again, however, the change was a happy one. He was now known. Moreover, he was now able to take up his residence in a favorable locality, so he settled in a wing of Schomberg House, Pall Mall, a noble mansion still standing, paying for the portion occupied a rental of £300 a year.

As at Bath, sitters flocked to his studio, and before long he received a summons to the Court. "Henceforth," says a biographer, "he divided with West the favor of the Court, and with Reynolds the favor of the town."

The years were now busier than ever. He painted portraits of George III., of Queen Charlotte and her children, of the polished Lord Chesterfield, of Admiral Rodney, Samuel Johnson, Canning, and many others not less notable.

As of old, he haunted the green-rooms of theaters, painting the actors and actresses, and usually, with his characteristic generosity, presented the portraits to them as soon as finished, as a slight tribute of his gratification in their ability to "delight the world." "It was to be my present to Mrs. Garrick," he wrote to Garrick upon one occasion, in reference to a portrait of the actor for which he did not wish to accept payment,— "and so it shall be, in spite of your blood. . . . I know your great stomach, that you hate to be crammed, but you shall swallow this one bait. . . . God bless all your endeavors to delight the world, and may you sparkle to the last!"

One of his best portraits of this time was the famous "Blue Boy," a portrait of young Master Butall, son of a rich iron-monger, painted in refutation of Reynolds' theory that blue should never be made the leading tone of a picture.

Especially, perhaps, did Gainsborough delight in painting portraits of ladies, "their soft, clear skin, and curling hair, the gloss of silk and fluff of feathers." His portrait of Mrs. Siddons is considered second only to Reynolds' representation of her as the Muse of Tragedy,—notwithstanding his impatient criticism of her, "Madam, there is no end to your nose!"

Among his favorite sitters were the Misses Linley, daughters of a Bath musician, who were renowned for their singing, as well as their beauty. Elizabeth was especially beautiful, and England went wild over her. At eighteen, she had married Sheridan—a runaway marriage—and at thirty-eight she died. It was said that Gainsborough never missed a concert at which she sang.

Another was the fair but notorious Emma Hart, afterwards the famous Lady Hamilton, who for a time before her marriage lived as model to an artist in an adjoining wing of Schomberg House, and yet others were the Duchesses of Devonshire, Georgiana and Elizabeth. One of his portraits of the latter, it may be remembered, was stolen from Messrs.



The Market Cart.

From a painting by T. Gainsborough, R. A.

then a winter resort of wealth and fashion. "All the folly, the wit, the wealth and fashion of London," says Gower, "congregated in the handsome, and then but newly-built Circus, and its adjoining streets and promenades. Sheridan revelled in the humor of the place and in its society, which furnished him with the material for some of his brighter comedies; whilst Miss Burney noted down for use in her next novel the vanities and follies, the gossip and scandal of that frolic crowd." A peal of bells used to welcome the arrival of strangers. There was none for Gainsborough; but to-day may be seen a tablet on the house where he lived, while even the names of the great majority of the fashionable folk for

the actors Quin, Henderson, Foote, and Garrick. The gentlemen of the footlights he found to be not at all easy subjects. "Rot them!" he used to say,—"they have everyone's expression but their own!"

During all of this time, however, Gainsborough never let drop his favorite pastime, landscape painting. He did not expect to sell his landscapes, never but once or twice, indeed, did he so much as take the trouble to sign them, and he scattered them about with a reckless generosity, even giving several masterpieces to a carrier named Willshire, who had refused to accept payment for carrying his pictures to London, and who, possibly, did not realize how highly he

Agnew, who had purchased it for an immense sum, in 1876. In April, 1901, it was given up to detectives who were working for Messrs. Agnew in Chicago, by a man named Pat Sheedy, and finally it was sold to Mr. Pierpont Morgan, for \$70,000.

Indeed, stories seem to cling about many of Gainsborough's portraits. Another, of the fair Mary Cathcart, daughter of Lord Cathcart, afterwards Mrs. Graham, was painted when she was a bride of nineteen. At thirty-five she died, and her husband never could bear to look at the picture afterwards. He had it bricked up, and fifty years later it was discovered and bequeathed to the Scottish National Gallery, by the Graham of the day.

Among the paintings of Gainsborough's later years may also be remembered those of the Prince of Wales ("Prince Florizel," afterwards George IV.), and his friend, "Handsome Jack St. Leger," whose spirit is still supposed to haunt his estates in Ireland in a phantom coach. He also painted a notable portrait of the famous Mrs. Fitzherbert. This lady had been married to Edward Weld, of Lulworth Castle, in 1775. He died within the year, and in 1778 his widow married Thomas Fitzherbert, who, in turn, died in 1781. Four years later Mrs. Fitzherbert was secretly married to the Prince of Wales, but the marriage, never acknowledged save as a morganatic one, and at that by intimate friends, was eventually set aside because of the fact that the lady was a Roman Catholic. It is stated in Encyclopædia Britannica that the marriage between Mrs. Fitzherbert and the prince was childless. Whether this be true or not, it may be interesting to state, just here, that once, many years ago, two persons who declared themselves to be children of the two, lived in London, Ontario, for a time, one dying there, and being buried in one of the cemeteries of that city.

During his residence in London, Gainsborough's greatest loss was, perhaps, that he could not so readily slip out to sketch from nature. Nevertheless, he used often to paint scenes from memory or imagination, piling up on a table a landscape model of bits of looking-glass, stones, and dried plants, to aid him in composition. At times, too, he made sketching tours, and regularly his landscapes appeared at the Academy Exhibitions. They were invariably praised, but were never sold, and so they accumulated in his house until they stood, says Sir William Beechey, "ranged in long lines from his hall to his painting-room."

An interesting fact may, perhaps, be told here in regard to the wing of Schomberg House which Gainsborough occupied. Many years after his death (in 1857), when the house was being renovated, four large landscape paintings were found in an obscure hall, painted on the wall, but black with soot. They were carefully cleaned, and found to be of great beauty, ostensibly "Gainsborough's." So, perhaps, had this man with the soul of a Richard Wilson, consoled himself often for his absence from the trees and fields and damp skies that he loved.

As old age neared, troubles came to the lovable old artist. Jack Hill, a gypsy boy whom he had kept at Schomberg House, petted, and spoiled, acted ungratefully; a daughter who had married, in secret, Fischer, the musician, became insane; in 1784, Gainsborough fell out, for once and all, with the Royal Academy, because they had refused to hang his portrait of the three eldest daughters of George III. where he wanted; then, too, his health was failing. At a dinner, early in the winter of 1787-8, with Sheridan and Sir George Beaumont, he suddenly announced that he should not live long. He wished to have one worthy man to accompany him to the grave, he said, and, thereupon, invited Sheridan, who laughingly assented, thus the gruesome fancy passed off as a joke.

In February, however, at the famous trial of Warren Hastings, the artist, who was sitting before an open window, suddenly complained of a sharp pain in his neck. A lump, which proved to be cancerous, immediately appeared, and intense suffering set in.

Gainsborough, anticipating the end, made his will, and wrote a letter to Sir Joshua Reynolds, towards whom he felt that he had not acted fairly, asking him to come and look at his "things." The two met alone, and a reconciliation, after a long coolness, took place. From that perhaps remarkable interview, but a chance word drifted out into the world: "We are all going to Heaven," said Gainsborough, "and Van Dyck is of the company."—Van Dyck had always been his ideal.

On the second of August of that same year, 1788, he died, and was buried, as he had requested, at Kew, beside his old friend, Joshua Kirby, his grave being marked, as he had also requested, by a flat, blue slab, without text or ornament,—just his name, "Thomas Gainsborough."

Gainsborough always painted with brushes whose handles were six feet long, and, when working on portraits, in a room with very little light. He was a prodigious worker, and left some hun-

gether by an unerring law, and directed with faultless certainty to a definite effect. Stand at the intended distance, and the whole unites into a perfect harmony. Zig-zag lines resolve themselves into the semblance of stuffs and render the intended form, color and texture as by a magical power." He excelled, indeed, in painting textures. "As a colorist," says the same critic, "Gainsborough can be placed next to Van Dyck, and in England he created a new school by his art of making even a lady's petticoat a thing of beauty, a field of color as beautiful as one of golden cowslips, or as gorgeous as one of scarlet poppies."

Of his landscape painting, Constable wrote, "The calm of mid-day, the haze of twilight, the dew and pearls of morning, are what we find in the pictures of this good, kindly, happy man. . . . As we look at them the tears spring to our eyes, and we know not whence they come. The solitary shepherd with his flock, the peasant returning from the wood with his bundle of faggots, the darksome lane



Elizabeth, Duchess of Devonshire.

From a painting by T. Gainsborough, R. A. Courtesy of the Perry Pictures Co., Malden, Mass.

dreds of canvasses, many of which have been lost through his habit of so often leaving his paintings—and invariably his landscapes—unsigned.

Although his portraits were less intellectual than those of Reynolds, they are usually acknowledged to express more sweetness. He was, too, argues Lord Ronald Gower, who admires his work greatly, more distinctively British, and possibly more distinctly original, in some respects, than Reynolds. Reynolds was influenced, to an appreciable extent, by the work of the great masters; Gainsborough worked by himself; he painted his native land and its types of people,—he "loved it so well that he never left it, not even to cross the Channel."

Even in his methods of applying paint, he was distinctly original. "Look closely at the canvas," says Conway, in referring especially to his portrait of Mrs. Fitzherbert, "and the costume resolves itself into a writhing mass of soft, streaky, ribbon-like brush-tracks, curled and twisted about in a wondrous, seeming confusion, yet in reality held to-

gether by an unerring law, and directed with faultless certainty to a definite effect. Stand at the intended distance, and the whole unites into a perfect harmony. Zig-zag lines resolve themselves into the semblance of stuffs and render the intended form, color and texture as by a magical power." He excelled, indeed, in painting textures. "As a colorist," says the same critic, "Gainsborough can be placed next to Van Dyck, and in England he created a new school by his art of making even a lady's petticoat a thing of beauty, a field of color as beautiful as one of golden cowslips, or as gorgeous as one of scarlet poppies."

And a yet greater than Constable—Reynolds—has said of him, "Gainsborough is an immortal painter . . . the greatest colorist since Rubens."

Selfishness is the greatest curse of the human race.—William Ewart Gladstone.

Every form of labour should minister to growth.—George Meredith.

Doubt of any sort cannot be removed except by action.—Carlyle.

Virtue consists, not in abstaining from vice, but in not desiring it.—Bernard Shaw.

Some men always expect to be given a chance, while others go ahead and take it.

Every generation laughs at the old fashions, but follows religiously the new.—H. D. Thoreau.

Hope's Quiet Hour.

The Open Door Into the Infinite.

We look not at the things which are seen, but at the things which are not seen: for the things which are seen are temporal; but the things which are not seen are eternal.—2 Cor. iv.: 18.

It has been said that religion is "the poetry of the heart, the open door into the infinite." And men in every age are inclined to narrow their horizon, not looking through the open door at the glorious mysteries of God, but turning their backs to the great things which are eternal that they may fill their arms—and try in vain to fill their hearts—with the visible things which so soon fade or lose interest.

If we want to be delivered from the boredom of the commonplace, we must learn to look at the things which can never be discovered by our bodily senses. It may seem to the "stay-at-home" a great step out of the region of the commonplace to have the opportunity of travel. And yet a person who is only seeing Europe with his bodily eyesight, will soon find even the constant change of environment is tedious and wearying. A tourist was once looking at one of the scenes most famous in history, and growled wearily: "I can't for the life of me see what people find to rave about in these places; a lot of barren rocks and tumble-down ruins!"

Such a man would feel no thrill if permitted to stand where the Saviour of the world stood on the Mount of Olives, or kneel where He knelt under the burden of our sin in the Garden of Gethsemane. Perhaps he would even turn away unmoved from the bare spot of ground where that Cross once stood bearing the King of all ages. It is holy ground, not because it looks different from any other place, but because we see there Him Who is invisible.

Jacob fell asleep in a lonely wilderness, and when he awoke, after that dream which was a peep through the open door into the infinite, he exclaimed: "How dreadful is this place! this is none other but the house of God, and this is the gate of heaven." He had seen only "things visible" before he slept, and the place had seemed dreary, now he knew how blind he had been, and said: "Surely the LORD is in this place; and I knew it not."

What is your outlook on life? Are you looking very often through the open door, or is your heart set almost entirely on the disappointing things which are temporal? Why should I care about your outlook? I don't know why I do, yet I desire with all my heart to give God's message effectively. My earnest prayer is that your spirit may reach out with mine to seek His Face.

"In wonder-workings, or some bush
afflame,
Men look for God, and fancy Him con-
cealed;
But in earth's common things He stands
revealed,
While grass and flowers and stars spell
out His Name."

Are we seeking and finding Him everywhere,—in the solemn glory of stars, in the restful green of the grass and the love-lit blue of the sky, in the song of birds and laughter of children? Or have we turned our backs on the open door, in mournful complaining about our troubles, or in eager pursuit of earthly advantages?

I lately read a glowing description of the many advantages enjoyed by the up-to-date farmer. No need for him to drive long miles to do business, he has the telephone. No need to go to town for his mail, it is brought to his door. His wife shares in the improvements, and has her electric iron and other labor-saving devices. How we have improved on the one-horse methods of our forefathers! Have we? These things are visible and temporal. We shall soon be forced to lay them down and step out through the open door into the eternal. They are all very well, if our hearts are set on things above. Then we can drop them without regret, or use them for a time without spiritual injury. But, even in the search for present happiness,

they are very powerless and commonplace. After you have used a telephone for a few months, it may add to your comfort, but it will not add to your happiness. For happiness is invisible, and feeds on the invisible. A man and a woman, who love and trust God and each other, can find more happiness in a shack on the prairie than another pair, whose lives are lived apart from God and each other, can discover in the grandest palace that was ever built. Don't waste your time envying millionaires. Happiness is as close to you as it is to them, if you choose to look for it in the right direction. The Carpenter of Nazareth had had no experience of the life of a rich and prosperous man on earth—though He knew well what poverty was like—yet He was too clear-sighted to think that riches were a great advantage. Listen to His words: "Woe unto you that are rich. . . . Woe unto you that are full. . . . Woe unto you that laugh now. . . . Woe unto you when all men shall speak well of you."—S. Luke vi.: 24-26. Notice how little He makes of the four great objects of worldly ambition—money, comfortable prosperity, pleasure, fame. Instead of envying, He tenderly pities those who seek—and still more those who find—their satisfaction in temporal things. Soon these will be left behind, and souls that have succeeded in finding satisfaction in things temporal, must have crushed down and almost killed their natural ambition for holiness, courage, endurance and love. One who is rich, and rests his heart upon his riches, has lost his higher aspirations—has already, as Christ says, received his consolation. Ideals encourage us to climb, and as long as we are not satisfied with ourselves or our condition, we shall try to improve. If we look only at visible things we shall be commonplace, and shall miss the glory hidden in every common thing, which is "afire with God." We may find God in the Lord's Supper, and may be filled with His Life—or we may see only the bread and wine. A tray of wedding-rings in a jeweller's window may be only a collection of plain bands of gold, prosaic and commonplace enough. But each of those rings, held in the eager hand of a young bridegroom, or pressed by him on the finger of the woman he loves, is shining with mystery and romance. Jacob, Moses, and Joshua, were each given a new revelation of God, and they felt that even the common earth where they stood had become holy ground.

If we constantly try to see everything from God's point of view, our spiritual vision will grow steadily more strong and clear. Then, if anyone gains riches by underhand dealing or oppression of God's children, we shall not say: "What a successful man that is!" but "What a terrible thing it is to sell honor and righteousness for money!" If we, or those whom we love, lose health of body or mind—still keeping unshaken the health of the spirit—we can wait God's time of restoration, knowing that all things will certainly work together for the real good of all who love God. When God stoops down and lifts out of sight our nearest and dearest, we need not look to the past as if life's joy were over. "The best is yet to be"; the one we loved no longer lives in that familiar tabernacle of the body, but the invisible love which bound us together still binds us. Death can only touch the body, the person is unchanged. We can still walk together in the secret mystery of love. We are not hopeless of the harvest because there is no sign of it in early spring. We look forward, and wait in hope and trust. Let us try to trust God's way of working—then He can do wondrously in us and through us. George Macdonald says:

"Courage! for life is hasting
To endless life away:
The inner life unwasting
Transfigures thy dull clay.
Lost, lost, are all our losses;
Love sets forever free:
The full life heaves and tosses
Like an eternal sea:
One endless, living story,
One poem spread abroad!
And the sun of all our glory
Is the countenance of God!"
DORA FARNCOMB.

Many a man collects his thoughts from other people.

The Precious Hours.

The one thought that comes to the mind of the old man when he speaks to the young, is this: Oh, that it were possible to make them know how precious are the hours, how fraught with consequences of incalculable importance, which now fill up each and every day of their comparatively easy lives. I would not ask you to relax your attention to the games that fill up your leisure hours; but, I say, let every one, with the same energy with which he plays cricket or football, with the same energy with which he applies himself to leaping and running, or to any exercise whatever, of his corporal powers, and he wants very little exhortation, so far as my experience goes, to be energetic with that portion of his duties—let him carry the very same spirit into the work which is intended to develop his mental faculties. The extension of Government employments has given an enormous enlargement to what may be called the official classes—in fact, there is a much larger number of professionals competing now than competed together in the days when I came into this

Some Old-time Echoes.

ON TREK IN THE TRANSVAAL—WE LEAVE DURBAN.

IV.

14th May, 1875.—I doubt if we could call ourselves fairly on trek when we left Durban early this morning by 'bus for Maritzburg. Passengers are requested not to take their seats until the driver is upon the box. Passengers do take their seats, in disobedience to this rule, and mishaps sometimes occur, as well they may, when the six steeds, fresh from their stable, do not always think it necessary to wait for that event before careering away towards the road over the Berea, which they must traverse at more sober pace presently. However, stiff, tired and very, very dusty, we arrived at Pieter-Maritzburg before night fall.

How often we changed our six horses, and how unclothed were the Kaffir grooms who changed them; how their jargon could not be interpreted by a little boy whom I questioned, "because their words were naughty," is it not written? And the scenery—over the Berea—over the In-

the point of a pistol in Queen's birthday week.

"Go the day after to-morrow," said an old resident. "Not a bit of it; you won't go for a fortnight."

This sounded too ridiculous, when such trifling additions were required to our equipments. We did not go for a fortnight, therefore it was clear that our informant knew Natal tradespeople better than we did.

Queen's birthday week means much to Pieter-Maritzburg. It is the week of the year. It means races, it means bazaars, it means picnics, it means shows. We, between us, saw all of them, and jointly the ball. We were told that Sir Garnet Wolseley's courtesy had extended itself quite beyond the usual limits, but if more Jacks, Toms and Harrys were present than should have been, I must own that they were very well behaved individuals indeed.

There was, of course, a peculiar significance in the appointment of not only a military governor, but of a man of such high standing in the counsels of the British Empire to the unsettled Colony of Natal. At this juncture much tact and wisdom was required to avert possible calamity, but it was also equally necessary to have at the head of affairs one who in the event of an open rupture could be a commander in the field as well as the governor of the colony.

As I stood by his side on the occasion of the special function which was to bring him into a closer acquaintanceship with the people whose interests had been committed to him, as I noted blazing upon his breast the almost uncountable number of orders which he had won by his valor in battle, I felt sure that come what may, the possible emergency would surely be met wisely and well, as indeed within only a few months later on it certainly was. It was very pleasant to find during that quiet ten minutes' chat by the sweet-scented shrubs in the conservatory opening out from the ball-room of Government House, that with all that Sir Garnet Wolseley must have to occupy his busy mind, he could still hold in clear and affectionate remembrance his old days in Canada, when, as Colonel Wolseley, he was known to so many Canadians, ourselves amongst them. He named old friends by dozens, and took up old links as if he had never dropped them at all, and more than that he had questions to ask of my own soldier brother, whom he had known in their earlier manhood many years ago in England.

SOMETHING ABOUT PIETER-MARITZBURG.

This is as we found it in 1875. Pieter-Maritzburg lies in what looks like a hollow, with hills mounting up some 1,200 feet garrisoning it around. It is about the size of Durban, and the streets are laid out much as those of that town. The houses are many of them in shape like bungalows, lofty and thatched, with cool, broad verandahs, flower-garlanded into rustic beauty, even where they face upon the main streets. Some might with advantage be larger, but wages are dear and material costly, so there is a good reason for very large homes being rather the exception than the rule. Water-courses run through the streets with a cool, refreshing trickle, tempting one sorely to off-shoe and paddle therein on a hot day. The Kaffirs are forbidden by law to stand in the streams, which, as they provide the citizens with drinking-water, would hardly be improved should such comfortable little dabbles be indulged in. Water is fetched early, and after due filtering, is pure and good, and the supply is unfailing. Those old Dutch pioneers knew how to choose well when they selected this spot for their city!

The town has a fair proportion of public buildings: the Legislative Assembly, court house, post office, with its broad flight of steps, etc. The streets are wide, and there is a good market, whilst the grounds laid out as a public park give promise of great beauty when the young trees attain their full beauty, the kindly climate of Natal being always very indulgent in the matter of growth to every product of nature entrusted to it. The gardens everywhere testify to this. They are rich in vegetation, blue gums, seringas, weeping willows, bamboos, etc., flourishing apace. Fruit is abundant, and the ever-flowering rose hedges meet your eye everywhere. There are many churches, and excellent colleges for girls



Portrait of Mrs. Siddons. From a painting by T. Gainsborough, R. A.

world; but, depend upon it, the profession of clergymen, if it be more arduous than it has ever been, is, on that account, nobler than it has ever been.—W. E. Gladstone.

The Lifters.

Give him a lift! Don't kneel in prayer, Nor moralize with his despair. The man is down, and his great need is ready help—not prayer and creed.

One grain of help just now is more To him than tomes of saintly lore. Pray if you must, in your full heart. But give him a lift—give him a start.

The world is full of good advice, Of prayer and praise, and preaching nice, But the generous souls who aid mankind Are scarce as gold and hard to find.

Give like a Christian—speak in deeds. A noble life's the best of creeds; And he shall wear a royal crown Who gives them a lift when they are down. —Anon.

changa! dip, dip! climb, climb! Oh, for an adjective wherewith to condense my admiration into one word! Dr. Johnson could not find one for me, and Lady Barker has travelled over the same ground and she has told you all about it!

PIETER-MARITZBURG.

Of Pieter-Maritzburg, though it was not then what it has become to me since, I must say something. "Sleepy Maritzburg!" quotha. Well, if it was asleep, it was, as we found it, after a very wide-awake fashion. A trifle, no, rather more than a trifle, I am afraid I must confess drowsy as to business; but as to pleasure it was open-eyed enough. It was our misfortune, seeing time was precious to us, to arrive during the Queen's birthday week. Natal is not one whit behind our other colonies in loyalty, and do not our colonies know how to honour our Queen?

We were eager to get "on trek," but, if the need of a nail might detain us to our utter discomfiture, that nail could not have been produced in Maritzburg at

as well as boys, besides a large airy hospital, with an able staff of physicians, and last, and certainly least, a gaol for its occasional prisoners. Fort Napier looks down upon the city it protects, and when it has its large array of military tents pitched picturesquely about it, it gives life and variety to the Capital of Natal.

WE START FOR THE TRANSVAAL.

It was with some reluctance that we parted from our old friends in new surroundings, as well as with the many new friends who had helped to make our visit to Pieter-Maritzburg one to be always most pleasantly remembered.

In my Log, under date 1st June, 1875, I find this entry: Off at last! How can I describe our start from the yard of the Royal Hotel, where, amongst those who gathered around to bid us adieu, many stretched forth helping hands to perform what seemed like a magician's task, the compressing of what must go into spaces which appeared already filled to overflowing? The human freight had still to adjust itself, but where? A narrow wedge at one side of the wagon, but over which oozed packages, hard as well as soft, attracted my attention. If I could but once get into that, and no one but myself could do so, that should be my nook! Thus, my travelling companions, my husband, keen on his business errand, and the Rev. Mr. G., on missionary thoughts intent, would be free to use the two very small spaces left for passengers, if only they could squeeze themselves into them, a feat which was finally accomplished, and which became by daily practice, aided by the jolting of the wagon and the application of the old adage, "Necessity is the mother of invention," one less difficult of achievement.

Our eight horses had been sent on to the top of the town hill, according to the good Natal fashion of starting with fresh beasts from thence, instead of wearing them out at the outset of a long "trek," oxen, for a certain fee per head, being hired for this supplementary duty. With measured tread our lumbering animals dragged us up that picturesque but interminable hill, and I caught myself saying rejoicingly, "thanks be that horses and not oxen are to take us over the 600 miles of berg and veldt between Natal and the Transvaal;" but before twenty-four hours had passed I mentally begged pardon of those patient oxen, for when the exchange was made our travelling troubles really began. H. A. B.

To be continued.

The Beaver Circle.

OUR SENIOR BEAVERS.

Some More Competition Letters.



Daisy Fleabane.
(Drawn by Amy Seburn.)

HOUND'S TONGUE, CARAWAY, DANDELION.

The hound's tongue is composed of several stalks from one root. The stalks are soft, and about as thick as a lead-pencil at the root. I got my specimen on the road, in the swamp near our school. It also grows quite plentifully in open spaces in the woods. The leaf is shaped like a hound's tongue, and that



Trillium.
(Drawn by Winifred Colwell.)

is where it gets its name. There are several clusters of small, red flowers. These grow on every stalk of the plant. The root is not very hairy, and is pretty large. [Most of the Beavers will recognize hound's tongue most readily if mention be made of the little, flat, hard "burs" that follow the flowers.—Ed.]

The caraway is an aromatic plant. We get caraway seed from it. The seed is used in buns. We have quite a patch of it in the corner of our lawn. I didn't know what the name of it was for quite a while. The flower is white, composed of many bunches of blossoms. It is not very common around here. It comes up



Star Flower.
(Drawn by Hilda Johnson.)

every spring, and seems to die out in the winter-time. It branches off right from the root.

The dandelion is a very common roadside plant. It also grows in gardens, fields, and lawns. It does not matter much about the soil, for it grows everywhere. The stalks are hollow, and the vein of the leaf is also hollow. It is a very early plant, and goes to seed quickly. The seed is blown off by the wind, and the plant spreads very rapidly. LINDSAY McLENNAN (age 11, Sr. IV.) R. R. No. 5, Guelph, Ont.

DOG-TOOTH VIOLET, TRILLIUM, INDIAN TURNIP.

The root of the dog-tooth violet is a small bulb, from one-quarter to one-half inch in diameter, and having numerous

rootlets at its base. Rising from the root are two leaves which clasp the scape about one-third to one-half way up. These leaves are lanceolate, parallel-veined, regular, a greenish-yellow, with brownish blotches, the blade being from one-half to one inch wide, and from three to six inches long.

Rising from the root is a single, fleshy, herbaceous scape, from eight to twelve inches high, and having at its summit a single terminal complete flower.

The perianth is divided into two rings, each ring consisting of three sepals. The sepals of the outer ring are lanceolate, recurved, a yellowish-brown on outside, and yellow, streaked with brown on inside. The sepals of the inner ring are of a more brilliant yellow, base of inner side having numerous brown spots. The stamens are hexandrous, and consist of filament and adnate anthers, which open at sides when pollen is ripe. The pistil consists of three stigmatic surfaces, one style, and a three-carpelled ovary.

The adder's tongue, as this flower is often called, grows in rich, damp soil, and flowers during April, May, and early June.



LADY'S SLIPPER
(Drawn by Catherine MacDonald.)

The Trillium.—The trillium has a horizontal rootstock that is abruptly ringed, having numerous rootlets, and being decayed at one end.

Rising from the rootstock is the decayed stem of last year's growth, and rising from the base of this is a fleshy, solid, herbaceous, erect stem, from eight to twelve inches high, having at its summit a whorl of three rhombic-shaped, net-veined, abruptly-pointed sessile leaves.

Rising from the middle of the whorl is a single, solid peduncle, about three or four inches high, and having at its summit a single, regular, complete, terminal flower.

The calyx consists of three green net-veined, polyphyllous, inferior, ovate, sharply-lanceolate sepals. The corolla consists of three inferior, net-veined, ovate, sharply-lanceolate petals (color, either a dark purple, white, or pink and white). The hexandrous, hypogynous stamens, consist of filament and innate anthers. The pistil consists of three recurving stigmas and a three-carpelled ovary.

The trillium grows in rich, shady ground, during April, May, and June.

Indian Turnip.—The root of the Indian turnip consists of a round, wrinkled, fleshy corm, sometimes over two inches in diameter.

Rising from the root is the single scape, or stem, which is sheathed by the base of the leaves. The leaf is on a long, naked stalk, and divided into three ovate-lanceolate leaflets. The sheath that protects the spadix, or central column, is a hood of a pale green color, with brown stripes. The fruit, when ripe, is a bright scarlet, and clusters around the base of the scape. As the berries ripen, the hood withers and shrivels to allow sunshine to enter.

In the root is a hot acrid juice of a poisonous nature, but which, after application of heat, is rendered harmless



SHOWY ORCHIS
(Drawn by Catherine MacDonald.)

and useful. This plant gets its name from the fact that the Indians used it as a remedy for colic, etc. The juice of this plant, when boiled in milk, is used in some places as a remedy for consumption. This plant has many names, some of which are cuckoo-pint, Jack-in-the-pulpit, and many others. During May, June, and July, the plant is found in forests, or in rich, damp, shady soil. WINIFRED COLWELL. Brookville, N. B.

HEPATICA, SPRING BEAUTY, DUTCHMAN'S BREECHES.

Dear Puck and Beavers,—I have enjoyed reading your letters, but have never got up courage to write until now. My father has taken "The Farmer's Advocate" for several years, and enjoys reading it very much. I am going to try for the flower competition, and hope to be successful. I go to High School and am in the First Form.

My first flower is the hepatica. I found it in quite rich soil in the woods. It is a rather peculiar flower, because the large, open leaves are last year's, and this year's leaves are closed and hairy.

My second flower is the spring beauty. It is perhaps one of our most common, early spring flowers. The soft stem springs from a brown tuber. It grows in fertile soil in the woods, or along fences. The flowers are in a raceme, and are very pretty when they first open, as they are pink, but fade with the bright sunlight.

My third flower is the Dutchman's breeches. Not many of my readers will be familiar with it by that name, as it



Bellwort.
(Drawn by Catherine MacDonald.)

is generally called "boys," and another plant very much like it is called "girls." It springs from a bulb-like rhizome, which is pinkish in color. It is found

is found in low meadows, swamps, river banks, or ditches. The flowers are of a bright, shining yellow, being from one to one and a half inches in width. There are no petals, but there are usually five oval petal-like sepals. The stamens are numerous, and there are many pistils. The leaves are rounded, broad, and heart-shaped at base, or kidney-shaped. The stems are stout, smooth, hollow, branching about one-half foot high. REITA KELSO. Roebuck, Ont.



Dicentra. ("Dutchman's Breeches.")

in rich soil in the woods, and generally in bunches.

I am sending you a picture which I sketched in school one day. Well, I think my letter is getting long. I will close, hoping to receive a nature-study book, as I love such work as that. Wishing the Circle every success.

ARIEL M. MOORE (Age 13, Form 1C).

Burgessville, Ont.

STAR FLOWER, MARSH MARIGOLD, TRILLIUM.

In the months of May or June, a new spring flower comes into view. It is the star flower, which is usually found in the shade of woods in most places. The flowers are of a delicate white in color. They are star-shaped, with one or two on a slender stalk above a bunch of leaves. It has six or seven petal-like segments. There are from five to eight leaves in a bunch on each stem. They are thin, and tapering at both ends. The stem is slender, and from three to five inches in height.

The wake-robin, or trillium, as it is often called, blooms from April to June. It is found in rich, moist woods. The flowers are a dark purplish-red, erect on the end of the stalk. There are three spreading sepals. The leaves are in a



Hepatica.

of rivers, where the ground has been burned over, and in other places. The soil is generally rich where the bellwort grows. The leaves are long-shaped, and are at the top of the stem. The flower is long-shaped, and is of a creamy color.

The showy orchis is found in different places. I saw a swamp almost white with them when they were in bloom.

I think the showy orchis resembles the lily of the valley, as the leaves are similar. The blossoms are very fragrant.

I would like to win a prize as I have not any nature-study books.

Best wishes to the Beaver Circle.

CATHERINE A. MacDONALD (Age 16 years).

Upper Welsford, Queens Co., N. B.

TRILLIUM, INDIAN TURNIP, DAISY FLEABANE.

Dear Puck,—I am enclosing the drawings of three wild flowers, trillium, Jack-in-the-pulpit, and Canadian fleabane. Trillium may be found in every wood around here. I found mine near a decayed log; they are always larger when growing in decayed wood. We find red ones, which have a strong perfume. The white ones are beautiful, and we often find pale pink ones, but I think they are just the white ones getting more sun than others, as their perfumes are alike.

The Jack-in-the-pulpit likes damp, marshy places, with dark, rich soil, and plenty of leaf mould. The roots are set loosely

on the top of the ground, making it hard to pick them without dislodging their roots. It would be hard to find two Jack-in-the-pulpits colored and striped exactly the same. Some are brown, and some are nearly green, but we find more with their colors mixed and striped in many ways.

My other flower is called daisy fleabane, but is more commonly known as field daisies, and they may be found in nearly every meadow or hay-field, or any place where they can get plenty of sun. They have scarcely any perfume, and will grow in nearly any kind of soil, and when in rich soil will grow over two feet high. Well, with my drawings, I think this will be enough.

AMY SEBURN.

Longwood, Ont.

Your drawings were beautiful, Amy.

Never Had Time.

There was an old fellow who never had time

For a fresh morning look at the Volume Sublime;

Who never had time for the soft hand of prayer

To smooth out the wrinkles of labor and care;

Who could not find time for that service so sweet

At the altar of home where the dear ones all meet,

And never found time with the people of God,

To learn the good way that the fathers have trod;

But he found time to die,

O, yes!

He found time to die.

This busy old fellow, too busy was he To linger at breakfast, too busy was he For the merry, small chatter of children and wife,

But led in his marriage a bachelor life; Too busy for kisses, too busy for play, No time to be loving, no time to be gay; No time to replenish his vanishing health! No time to enjoy his swift-gathering wealth;

But he found time to die,

O, yes!

He found time to die.

This beautiful world had no beauty for him;

Its colors were black and its sunshine was dim

No leisure for woodland, for river or hill, No time in his life just to think and be still;

No time for his neighbors, no time for his friends,

No time for those higher, immutable ends Of the life of a man who is not for a day, But, for worse or for better, for ever and aye;

But he found time to die,

O, yes!

He found time to die.

The Dancing Days.

'Tis a year and a day back to Kindree Where the gerrls had no shoes to their feet!

'Tis many a mile to the ould town Where the childer' wanst danced in the street!

Here's bread to be had for the breakin'; Here's moilin' and frettin' and froth! But thinkin' av home, how me heart's blood

Must jig like a wave o' Lake Roth!

Av home, och, where down thro' the ould street

Wid his pipin' went Ragged MacGee— And faith, how the colleens thrallied round at his heels

And all jigged like the leaves av a tree!

The walls were a tumble of stone-heaps, The skim milk wid wather was thinned, And the thatch it was broken and mose-grown—

But we danced like the grass in the wind!

Not worth a traneeen was the village, But no wan was sthoppin' to fret— And I'll wager they're goin' like a tree-top to-day,

Faith, dancin' and starvin' there yet!

—Arthur Stringer, in The Forum.

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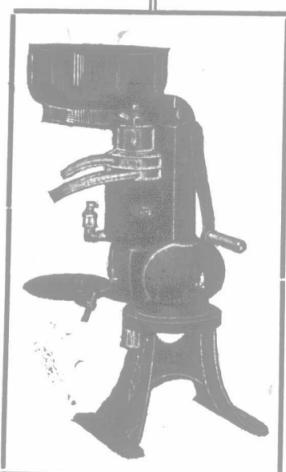
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[Rules for correspondents in this and other Departments: (1) Kindly write on one side of paper only. (2) Always send name and address with communications. If pen-name is also given, the real name will not be published. (3) When enclosing a letter to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

Chapter on Preserving Vegetables.

CANNING.

Comparatively few people can vegetables, yet often during the winter it would be very convenient to have a few sealers of peas, corn, tomatoes and squash to fall back upon for a hurried meal.

In canning all vegetables, as has been noted in a previous issue, the essentials of the process are thorough sterilizing of the jars and long boiling of the vegetable, tomatoes (really a fruit) being the only kind that will do with a short period of cooking.

Here is the method given by one expert: Thoroughly sterilize the jars (as described in this column a short time ago), then pack into them as tightly as possible, raw or cooked, whatever vegetable it is desired to save. Next pour in cold water until bubbles come to the top, no longer; put the new rubbers on, and lay the tops on loosely.

Now set the jars on the rack in the boiler and put cold water in until it comes about two-thirds of the way up, put the lid on the boiler and boil steadily, but not so madly as to disturb the jars, for several hours. When cooked, snap down the covers and remove the jars. Leave them until next day, then repeat the boiling for about half as long, loosening the snap, of course, to prevent the jars from bursting. Again snap down the covers before removing the jars from the water, and repeat the boiling on the third day. When the sealers have cooled this last time, set them away in a cool, dark, dry place. New rubbers should be bought each year, and sealers with snap-down tops are best.

The vegetables that may be canned in this way are greens of any kind, asparagus, corn, green beans, peas, cauliflower, beets, and squash. Do not put either sugar or salt into the jars.

SOME RECIPES FOR PRESERVING VEGETABLES.

Cucumbers.—Pack sliced cucumbers in sterilized jars and cover with vinegar and water mixed, about half and half, and slightly salted. Seal. No cooking is needed.

Snap or Wax Beans.—These may be kept, like cucumbers, in strong brine in jars or crocks. When you wish to use them during the winter, soak over night and change the water in the morning. Cook the beans until tender. Add a little vinegar when serving, or cream, butter, pepper and salt.

Horse-radish.—Grate, mix with vinegar and seal in sterilized bottles. When it is to be used, dilute slightly with water and add a little sugar. Whipped cream may also be beaten in, if liked.

Canned Tomatoes.—Stew tomatoes from 25 to 45 minutes, and seal at once in thoroughly-sterilized jars, adding salt enough to season, if you choose—some put one teaspoonful on top of each sealer. (2) Peel small, round tomatoes and put them in the sealers whole; cover with water to which a very little vinegar has been added, and boil in a boiler until thoroughly cooked. Fill each sealer to the top with boiling water and screw or snap down the tops at once.

Preserved Tomatoes, Ripe.—Pour boiling water over ripe tomatoes, leave for a moment, then drain and peel. Cut into bits, and preserve as you would any other fruit, by adding sugar and boiling. You may add lemon, orange or preserved ginger to flavor. The lemon and orange may be run through a meat-grinder.

Preserved Tomatoes for Pies.—To 8 pounds pared tomatoes, ripe or green, add three pounds sugar and $\frac{1}{2}$ pint molasses. Boil slowly three or four hours,

then put away in jars. When making the pies, bake between two crusts, adding a few very thin slices of lemon, or some lemon juice and the grated rind.

Tomato Paste (nice for sauces, stews, etc.)—Boil $\frac{1}{2}$ peck tomatoes, a carrot, an onion and a bunch of celery to a soft paste. Put through a sieve or vegetable ricer, and return to the fire, adding salt and pepper. When boiled until thick, spread on granite pie plates and dry. Pack in jars, cover closely, and keep in a very dry place. Add a bit of the paste to soups, stews, gravies, etc., as necessary.

Tomatoes, Whole.—Put whole, firm, ripe tomatoes in a stone jar. Cover with water and vinegar mixed, one-half of each, adding some whole cloves, a little salt and sugar. Put flannel over the tomatoes, and keep all covered with the liquid. Cover closely.

Dried Ripe Tomatoes.—Scald, peel, cook until soft, and dry on plates in a warm oven or in the sun.

Preserved Green Tomatoes.—7 pounds green tomatoes, cut in bits, 4 pounds sugar. Let stand over night; next day cook slowly, adding some ginger-root, or 2 lemons or oranges sliced or put through the meat-grinder. You may use more sugar, if you like.

A Surprise for Halton Co.

"ENNISCLARE" FLOWER GARDEN COMPETITION.

I have a surprise for the farmers' wives and daughters of Halton County, Ont., to-day. Inspired by the example of Mr. James Pearson, and the work he is doing towards making Peel County even more beautiful than it is, another beauty-lover, Mr. H. C. Cox, of the Canada Life Assurance Company, Toronto, presumably a Halton County "old boy" (?) has decided to offer similar conditions, for that part of the Province.

As may be remembered, the conditions for the Pearson Flower Garden Competition are as follows:

(1) Prizes of \$30.00, \$20.00 and \$10.00 are to be given for the three best flower-gardens in the county, taste in arrangement and luxuriance of growth to be considered rather than extent.

(2) All farmers' wives and daughters in the county may compete, the only conditions being, (a) that they belong to families in which "The Farmer's Advocate" is subscribed for; (b) that they send announcement of their intention to enter the competition to "Junia," this office, giving full name and address, also number of concession, lot, and name of township, in order that the gardens may be easily found when the judges make their tour of inspection.

These conditions, then, will obtain for Halton Co. as well as for Peel Co.

This announcement comes, it is true, a little late for the making of gardens, especially for the competition this year, but Mr. Cox did not chance to learn of the Peel County competition sooner. As he says, too: "I am sure there are already a number of attractive gardens in the county (Halton), and the offering of the prizes now might stimulate the effort to improve them, and keep them in good shape, and would at all events be the means of creating an interest in the matter for next year."

Much may yet be done towards making gardens finer still than they may be by watering, mulching, shallow surface cultivation, and treating with liquid manure (not too strong). So we hope that Mr. Cox's liberality will meet with an encouraging response, and that a great many entries will arrive at this office during the next fortnight.

We are particularly pleased in making this announcement for Mr. Cox, the more especially, perhaps, that Halton County adjoins Peel, so that a wholesome rivalry between the two counties is likely to be set up. We sincerely hope that this movement will extend until it embraces every county in the Dominion. Old Country folk continually contrast the bareness of the rural homes of Canada with the bowers of beauty which have been made of even the smallest cottage homes in England. There seems no reason for such bareness here. A few vines planted one year, a few shrubs another, a few borders of perennials and annuals, and the transformation is done. It is worthy of note, too, that each succeeding year makes the work in a flower gar-

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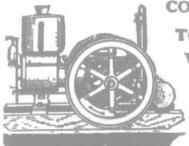
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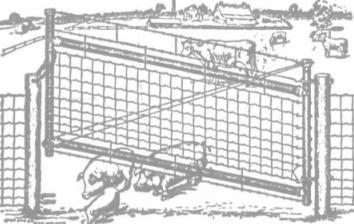
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den easier. The ground may be hard and poor to begin with, but the working in of well-rotted manure and compost every year (fall is the best time for this) soon makes it mellow, and hence easily dug and weeded. For long borders of perennials a one-horse cultivator may even be used with advantage.

Not so very much work, and think of the benefits!—Something beautiful to look at all summer long, plenty of cut-flowers for house and verandah.

Now, Halton County, won't you do your best? And will those of you who intend to enter this competition kindly send your entries, just as soon as possible, to "Junia," "The Farmer's Advocate and Home Magazine," London, Ont.?

Mr. Cox, by the way, wishes his competition to be known as the "Ennisclara Flower Garden Competition for Halton County."

KNITTED TIE.

No. 16 steel needles and knitting silk. The first and all the rows are k1, p1. Repeat for twelve inches, or the length desired, then narrow at both ends of needle. Remember, now, to p1, k1, to keep pattern perfect. Knit eight rows, then narrow again. Continue this until you have 25 st. left. Knit neck as long as necessary, then widen at both ends of needle, with eight rows between, until you have 45 st. Knit this end nearly as long as the other. Requires 1½ spools silk.

REMOVAL OF DANDRUFF.

Dear Junia.—We have been constant readers of your paper, "The Farmer's Advocate," for about ten years, and now I come to you for help. What would you advise for the removal of dandruff from the scalp? Would you advise coal oil? A FARMER'S DAUGHTER.

Lambton Co., Ont.
Thorough massaging of the scalp every night helps greatly in removing dandruff and making the hair glossy and healthy. Rub hard with the fingers until the skin is in a glow, then rub in a very little vaseline or carboline, or a little of any of the bay-rum hair tonics. It is well to get someone else to do the work, as one can hardly rub hard enough with one's own fingers. Very oily hair needs washing every two weeks, dry hair only once a month. When washing the hair, use a suds made of luke-warm soft water and castile or tar soap—you may break an egg in, if you like, or use only the yolk—then rinse three times in soft water, each cooler than the last. If the last rinsing water is quite cold, one is not so likely to take cold from the operation; the effect, also, on the scalp, is tonic. Dry the hair quickly, first by using dry towels, then by shaking and fanning the hair, a wisp at a time. This method was given me by a hair specialist. I have heard that coal oil is good, but have never used it. Carboline is, I believe, a deodorized preparation of petroleum.

THE RED-HAIRED GIRL.

Dear Junia.—Quite a number of the members have taken up their pens in defence of farmers and their wives and farm life in general.

I take up mine in defence of the red-haired girl. I hope you will pardon me, Junia, but I really could not let your "screed" go unanswered.

You see, I am blessed (although some would call it anything but that) with an abundance of red hair.

Are red-haired people more given to letting their hair go unwashed than are others? Or are they more devoid of taste in dress?

Because one red-haired girl does not look well in blue, must all the rest of us refrain from wearing that color?

Now, I agree with you that some red-haired people should never wear blue, but there are many shades of red hair, and as many different-colored eyes and complexions to go with them.

And let me say to my red-haired sisters, when your mirror has told you that a color is becoming, wear it—that is, if you have the least bit of the artist about you.

Sure, Junia, if you could see my hair, eyes and complexion (for the red-haired girl must take all three into considera-

tion when choosing her colors), you would know that blue of all shades was becoming, cream rather than pure white, some shades of brown, but no soft shade of green, except by artificial light.

The problem of dressing the red-haired girl is greater than that of any other girl, but why? Simply because some try to lay down hard-and-fast rules for red-haired people, never considering the difference in shades and coloring of the same.

But let not my red-haired sisters be discouraged. Study your own particular hair, complexion and eyes, and choose your color accordingly, wearing red, even, if it suits. Now don't be horrified at the suggestion. Titian, the master artist, took the auburn-haired girl for his model, and invariably clothed her in reds.

Had I not already taken a pen-name, I would feel inclined to sign myself "A Red-haired Girl," but I can't, as I have already written under the pen-name THELMA.

P. S.—You really would call the enclosed red hair, would you not? Nevertheless, to me it is beautiful. T.

Hoity-toity! I thought I was championing the red-haired girl, and here I am taken to task for being down upon her Titian locks! Honestly, Thelma, I think you had better read my "screed" over again, and see if you cannot get the meaning that was intended out of it. How could I say anything against red hair, when I have always thought some varieties of it exceedingly pretty, and when the envy of my life for many a year was a certain red-haired, brown-eyed cousin, whose hair has always been a real "crown of glory"? And how could you be so mistaken as to imagine that I insinuated that all red-haired people neglected to wash their hair? What I said was what I say still, that red hair, if not well cared for, is not pretty; the same thing may be said of any other hair, golden, black or brown, only we didn't happen to be talking of those shades at all, at that time.

My dear Thelma, if blue is your color, wear it, by all means. Personally, I have never seen a red-haired girl yet to whom any shade of it, except, perhaps, very dark navy, was as becoming as golden-brown or gray-green. I don't know whether the enclosed sample of hair is a bit of yours, or not. A friend and I have tried it against blue and against golden-brown, also grayish-green, and we have concluded that blue does not bring out its real beauty at all. It has a pretty glint to it, and—oh, yes—it looks—very well washed!

Perhaps my judgment is very poor; nevertheless, I dare to advise red-haired girls in general to be very wary about wearing red, "in spite of Titian." It should be very well known that artists run the same tone, very often, throughout their pictures—in background, draperies, even in flesh tints, so making the whole harmonious? Titian could put his ideal, with hair of that peculiar reddish shade that has ever since been called "Titian," (all red hair is not Titian by any means) against a certain background into which he could introduce a harmonious tone of red; he could introduce the same tone into the shadings of the hair itself, into the dress, and the picture would be just right. But the girl outside of the picture-frame has to appear before all sorts of backgrounds and in all sorts of lights. I can't imagine her with tresses of any of the ordinary tints looking well in a red dress; it seems to me it would kill their coloring entirely, but perhaps you think differently. I don't expect you to accept my judgment or anyone else's, unless your own says yea to it.

Once, in the Art Gallery of Toronto Exhibition, I saw a very fine landscape in which there were purple tones everywhere—purple clouds, purple shadows, even purple shadings on some cattle in the foreground. The picture was all right in effect, but purple cattle in ordinary lights and landscapes would have been rather startling.

Yes, the trouble is that too many red-haired people try to follow a "hard-and-fast" rule. A very great many of them, whatever the shade of red in the hair, imagine they must wear blue. Now, isn't that true?

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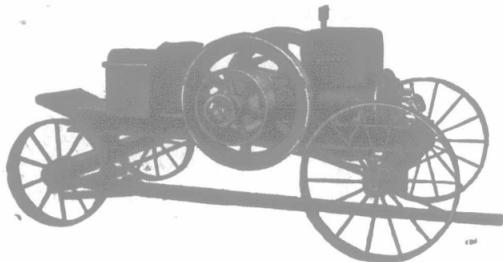
Q The most bread, the best bread and the finest pastry are the assurance you have in making McLeod's "SPECIAL" the family flour. Scientific millermen with the skill to appreciate and apply all the most modern and scientific appliances in producing the highest grade flour have made McLeod's "SPECIAL" the excellent product that it is, and the best proof of it lies in the fact that the demand for it grows daily.

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Don't be cross, Thelma. Whether you believe it or not, I really wrote the bit which has so disturbed you with the wish to open the eyes of a few people who think red hair undesirable (and there are just a few of them, you know), so that they might see differently. Just possibly that same paragraph of mine may have converted, from an utterly unreasonable prejudice, someone whom you may meet some day, and who may think your hair more beautiful because of it.

FLOOR FINISH.

"Farmer's Wife," Peterboro Co., writes, in reply to the inquirer who asked about finishing hardwood kitchen floors: "I just use boiled oil," she says, "and put it on good and hot, and rub off with another cloth. I find this to be all right."

DRINKS, JELLIES AND HOT-WEATHER PUDDINGS.

Lemonade.—Cut three lemons and an orange in two, and press out the juice. Take the pulps and skins, cut them up fine, cover with sugar and let stand an hour or more. In the meantime, boil 1 cup sugar with ½ cup water until it spins a thread, and pour while hot over the fruit-juice. While this is cooling, add ½ cup water to the fruit skins and sugar, and mash well; then drain off into the other syrup. This may now be diluted with water, and served very cold.

Iced Chocolate.—Grate 2 squares chocolate, mix with 1 cup sugar and 1 cup water. Cook to a thick syrup in a double boiler, then remove, put in 1 teaspoon vanilla, and set away to cool. When ready to serve, put 2 tablespoons of the syrup for each glass into a sealer, add the required number of glasses of very cold milk, and shake well. Serve in tumblers or goblets, with a spoonful of whipped cream on each. Very nourishing and refreshing.

Egg Shake (nice for an invalid).—Beat the white of 1 egg stiff. Add 2 tablespoons sugar and ½ cup very cold water to the yolk, and shake in a sealer until light and creamy. Add the white and shake again. Now put in 2 tablespoons lemon juice, a bit of grated rind, and a drop or two of vanilla, and shake again. Serve in a glass with whipped cream on top.

Pineapple Sponges.—Pack a number of small moulds with stale sponge cake crumbled fine, then fill with pineapple syrup in which a little gelatine has been dissolved. Set in a cold place to become firm.

Raspberry Souffle.—1 cup raspberry juice, 1 cup boiling water, pinch salt, 1 teaspoon lemon juice. Boil all together and thicken with cornstarch or arrowroot. When cooked, fold in the stiffly-beaten whites of four eggs, and pour into a mould dipped in cold water. Chill, and when ready to serve turn out on a large plate or dish, put whipped cream on top and berries around the edge.

Raspberry Vinegar.—To four quarts raspberries put enough vinegar to cover. Let stand 24 hours, then scald and strain. Add 1 pound sugar to every pint of juice, boil 20 minutes, skim well and bottle.

Spiced Currants.—To each pound currants, stemmed and washed, allow 1 pound sugar. Make a syrup in the proportion of 4 pounds sugar, 1 pint vinegar, 2 teaspoons each of cinnamon and allspice, and 1 of cloves. When boiling, add the currants and boil 20 minutes. Seal when cold.

Green Currant Pie.—Stem and mash 1 pint rather green currants, sweeten, add a sprinkling of flour or rolled cracker, and bake with two crusts.

Currant Conserve.—5 pounds stemmed currants, pulp of 6 oranges, 2 pounds washed and stoned raisins, 3 or 4 pounds sugar. Simmer all until thick.

Iced Currants.—Wash and drain dry large bunches of ripe currants, dip into beaten white of egg, sift powdered sugar over, and put in a cool place to dry. Cherries and grapes may be done the same way.

Tartare Sandwiches (nice for picnics).—Chop 3 sardines, 1 cup boiled ham or other lean meat, and 3 cucumbers, very fine, and mix them with 1 teaspoon each of made mustard, catsup and vinegar. Seasoning with salt and Cayenne. Put

between slices of thin bread, thinly buttered.

Currant Jelly.—Pick the currants when barely ripe, and be sure that they are perfectly dry before crushing them. Do not stem them, but look them over well, then crush them in a crock or granite kettle with a wooden potato-masher. Put all in a bag and drain over night. In the morning measure, and allow a pint of sugar to each pint of juice. Boil the juice 20 minutes, skimming well, and in the meantime heat the sugar in the oven. Now add the sugar, stir until it dissolves, and skim. Let boil up once, then strain through a little bag into glasses. Let the glasses stand in the sunshine one or two days, then cover with melted paraffine, put on the tops and put away.

Red Raspberry and Currant Jelly.—Take equal parts raspberries and currants, and proceed as above.

Gooseberry Jelly.—To 1 quart berries allow 1 pint water. Stew until fruit is broken, then strain through a bag. Do not press through, or the jelly will not be clear. To 1 pint juice allow 1 pound sugar. Boil the juice 20 minutes, then add the heated sugar and boil 5 minutes longer. The gooseberries left over may be made into jam.

Jelly Making.

[Condensed from bulletin of the Cornell Reading Course, written by N. E. Goldthwaite, of the University of Illinois.]

"A good fruit jelly is a clear product that is neither syrupy, sticky, nor tough; neither is it bitter, and yet it will break, doing this with a distinct, beautiful cleavage that leaves sparkling, characteristic faces."

If very juicy fruit, such as currants, raspberries and the like, is being used, place the clean fruit in an enamelled preserving kettle, add just enough water to prevent burning (perhaps 1 cup to 4 or 5 quarts fruit), cover, and place where the fruit will cook rather slowly, stirring occasionally with a wooden or a silver spoon. When the simmering point is reached, crush the fruit further with a well-soaked wooden masher, then continue heating until the whole mass is cooked through. Transfer the hot mass to a sufficiently large piece of cheesecloth (double if desired) wrung out of hot water, tie the opposite corners together, and let the juice drain into an earthenware or enamelled receptacle.

Keep this juice separate for the first jelly. The remaining pulp may be made into marmalade, sometimes into a second jelly by adding a little more water and boiling up again, using a smaller proportion of sugar; or this second juice may be kept to add to the first if that should show any sign of ropiness or stickiness. This sometimes occurs if the fruit is not rich in pectin, the jelling substance, so that too much sugar for the quantity of pectin has been used.

The correct proportion of sugar for fruits rich in pectin is usually from three-fourths to an equal volume of sugar to the equal volume of juice (¾:1 to 1:1). "Currants and partially-ripened grapes yield a juice so well adapted to jelly-making that they will usually demand the proportion 1:1, while ¾:1 is likely to be the correct proportion for red raspberries and blackberries, and for juices from fruits to which much water must be added, even to make the first extraction—such as sour apples, crab apples, cranberries, and the like. . . .

If the juice seems unusually watery, then lessen the proportion of sugar. Better err on the side of too little rather than too much sugar if a jelly that 'will stand alone' is desired; if a softer and sweeter jelly is called for, then, of course, a larger proportion of sugar should be used."

A very good jelly may be made of the second extraction by using a much less proportion of sugar, ¼:1 to ½:1.

In regard to the length of time of boiling, it is not economical to add the sugar at the beginning and boil long, since, owing to chemical changes, the long boiling makes the mixture less sweet, so that more sugar has to be used to give the required flavor; also by this process much sugar is lost in the skimmings.

The best plan has been found to be to boil the juice down rapidly for a time, skimming well, then to add the sugar,

previously heated in the oven. By repeated testings (by cooling a little in a saucer) after the sugar is added, the right consistency may be obtained.

It will be noticed that the best jelly-making fruits contain considerable acid. The jellying of sweet fruits—strawberries, sweet apple, quince, etc., may be aided by adding enough tartaric or citric acid to the juice to make it as tart as good tart apples, care being taken to have the acid thoroughly dissolved.

When the jelly is ready, it should be poured at once into hot, sterilized glasses, and after having "set," should be carefully sealed.

By experiment, a test was finally discovered for testing the amount of pectin present in a juice, viz., to add to one or two tablespoonfuls of juice in a glass an equal volume of grain (ethyl) alcohol, mixing thoroughly—and cooling. If pectin is present, a gelatinous mass will appear in the liquid. This test any housekeeper may use, thus receiving some guide as to whether much or little sugar will be required in making the jelly.

It was also discovered that pectin in oranges or lemons is contained almost wholly in the inner white skin, which, therefore, should never be discarded when making marmalade. If one does not wish any of the skin left, it may be dispensed with, and the jellying properties still retained by the following process: Remove all of the white inner skin, pass it through a fine meat-grinder, soak in water to cover for 24 hours, then cook slowly for some hours, strain, and add to the fruit-juice. This liquid may be added to any other fruits that are deficient in pectin or "hard to jell," e. g., rhubarb, strawberries, etc.

An old device is to combine other fruits with tart, barely-ripe apples, thus producing different flavors, while trusting to the pectin of the apples for the jellying property.

The Scrap Bag.

WASHING EGG DISHES.

Soak egg dishes in cold water first, then wash as usual. If you put them at once into hot water, it is harder to get the egg off.

WASHING STOCKINGS.

Black Lisle thread or cotton stockings are nicer if washed in bran water. To make it, put some bran into a cheese-cloth bag and shake it about in warm, soft water until it makes a sort of lather. Wash the stockings in this without soap, rinse in similar water and dry quickly.

MEAT IN HOT WEATHER.

If you have no refrigerator, you can keep a piece of meat fresh for a time in a crock of sour milk, changing the milk, if necessary.

REMOVING MUD.

Rub the mud-splashed article, when perfectly dry, over a dry washboard. This is better and easier than rubbing with the hands or brushing with a whisk.

FRUIT STAINS.

Pour clear, cold water through the stain, then spread on the grass to bleach, wetting the spot frequently. This is safer than pouring boiling water through, as hot water sometimes sets the stain.

SPOTS ON SILK.

To remove spots from silk, without injuring the color, take 5 parts water and 6 parts powdered alum. Boil a short time. To use, add a little more water and wash the stains. The mixture should be warm when applied.

TO CLEAN PIANO KEYS.

Rub them with alcohol or new milk, and polish dry with chamois or a clean, dry duster.

USE FOR OLD HATS.

Old straw hats may be ripped apart and sewn into waste-paper baskets. Wire the baskets to keep them in shape.

NEW USE FOR VINEGAR.

Vinegar is very useful for cleaning smoky or fly-specked woodwork, picture-frames, windows, etc. Rub the article with a flannel cloth dipped in the vinegar, washing the cloth frequently in water to keep it clean. Vinegar will often remove shoe-blackening that has been accidentally spilled on clothing.

Insist on the plain facts --- know them before buying any piano

THINK for a moment! You are not likely to buy a piano more than once during your life. See then, that you buy a first-class instrument—one that an expert should rise from ten years after this and be able to honestly declare "This is a superb piano."

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"Canada's Biggest Piano Value"

should be your choice. Study them carefully and write to us direct asking how we can sell this beautiful instrument at such a moderate price. But—study the main facts before writing, then, you'll be anxious to know how we manage to save our customers about \$100.00.

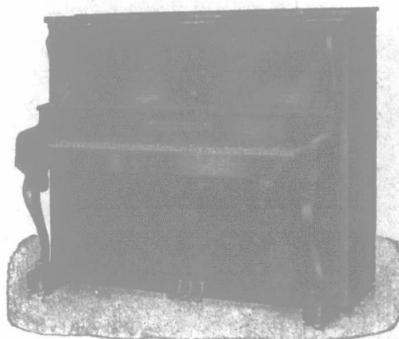
The appearance of the Sherlock-Manning makes friends of people, who appreciate excellency in design and finish, at the first glance. Every Sherlock-Manning 20th Century Piano has

- 1st, The famous Otto Higel Double Repeating action—
- 2nd, Po-hlmann Wire—the best imported—
- 3rd, A strong, full-iron plate—
- 4th, Welckert Felt Hammers—they are the best money can buy.
- 5th, Billings Brass Action Flange—the flange that is impervious to weather conditions.

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The Sherlock-Manning Piano & Organ Co. London (No street address necessary) Canada



Louis XV. Design
Style 105
Many others to choose from.

BREAD-BAKING HINT.

When bread or pastry is in danger of burning on top from too quick a fire, put a little cold water in a dripping-pan and set on the upper grate.

BEDBUGS.

One method of eradicating these pests is to treat one room at a time as follows: Seal up the room, stopping all cracks and keyholes. Put some sulphur in a deep pan, sprinkle with crude carbolic, light the mixture with some burning paper, and leave the place shut up for a week.

PERSPIRATION STAINS.

For removing perspiration stains from white silk, use peroxide of hydrogen. For colored silks, use a mixture of equal parts alcohol and chloroform.

Evening.

Still they toil on, fulfilling the day's work,
The plowman and his tired horse twain;
While, circling round, the clam'ring sea-mews lurk,
Or search fresh-furrowed earth in hope of gain.
High on the hill the horses rest at last,
And silhouetted 'gainst the evening sky I see their heads bent low with mein downcast,
Their weary master, silent, standing by.
Afar the distant waters, burnished gold,
Gleam in the radiance of the setting sun—
The autumn-tinted vale grows grey and cold:
The toiler's work is o'er—the day is done.
The sea-mews one by one are taking flight,
I too turn home as evening fades to night.

—(Miss) Hilda M. Dowden.
Rockdale, Orwell Road, Rathgar, Dublin.

The Sawdust Man.

By Marion Wathen.

Muriel Ansley was not married, and—she was thirty-five. When her friends teased her about it, she said, "I am waiting to find my ideal. I thought I had found him several times, but always happened to make a hole somewhere, and found him stuffed with only sawdust."
"But you'll fall in love with a sawdust man yet, just the same," said her friend, Mrs. Ingles.

"Well, there's one thing certain, I'm not going to be cheated out of a wedding tour, even if there isn't a man in the case. I'll have a honeymoon if I can't have a bridegroom," was Muriel's laughing rejoinder.

And that very year she had it. It started with the following declaration: "I don't believe in all this talk about 'opposites'; to my mind, 'congenial spirits' have more attraction for each other—congenial spirits with just enough variety of temperament to make it interesting. So my bridegroom is going to be a 'congenial'—Margaret Marlow is the very person; she shall go with me on my honeymoon."

So they started, one lovely day in August, on a driving tour through Prince Edward Island, in a top buggy—the top for shade from the sun and protection from storms, but at the start thrown clear back to give them the full benefit of the beautiful air and sunshine. Their luggage consisted of a good-sized lunch basket, for Muriel had said, "We'll now and then just picnic in some lovely spot by the shore or by the roadside, and we'll stay over night just wherever we happen to be, or just wherever we can get anybody to keep us." Then, there was a "grip" containing a few blouses and essentials for their trip, and—a mysterious, old-fashioned "telescope valise." The contents of this Margaret did not know, but for the present had to be satisfied with Muriel's, "My wedding presents, of course!"

"Happy the bride the sun shines on!" gaily quoted Muriel, when, just as the town clock was striking nine, they drove on to the Hillsborough bridge.

"Isn't this grand!—those red banks and green fields, the white farmhouses, the blue sky and blue water. There! it just needed those white sails to make it perfect. Who would take a wedding tour to 'New York and other American cities' when they can have a trip like this! I do think there is no soil so beautiful as this 'terra-cotta'; it looks so lovely against the green grass," gushed Margaret.

"Our first stop will be Keppock. It's not really on the road to anywhere, but that does not count on this trip. We'll take dinner on the beach. Marjorie Smith spent last summer at Keppock, and she has just raved about it ever since, so I'm curious to see what it's like. It's just five miles from Charlottetown, you know," informed Muriel.

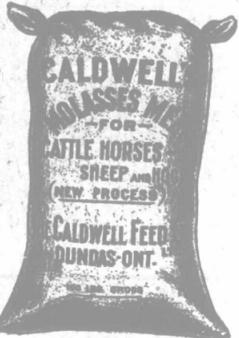
"Oh, I remember; she composed some kind of a rhyme about it which she was always quoting. The last verse was:

"O the red cliffs, dear cliffs!
For Bonny Doon why sigh,
When fairer far the Keppock banks,
On dear, wee — P. E. I.?"

But Muriel interrupted her with, "Oh! what's that? Look—on the road ahead! I believe it's—oh, it's only a load of hay. I was almost sure it was an automobile, and our horse would be ready to run. But I forgot; there's no danger of that here. It's really about the only place now that two women dare go on a driving tour alone. If things keep on we'll be really compelled to have real genuine bridegrooms; there are certain emergency cases where they are almost becoming an absolute necessity. But I do think it was plucky of the Prince Edward Islander to prohibit automobiles; it showed they were not afraid of what the outside world would say. They know when they want a thing and when they don't, and that's

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DUNDAS, ONTARIO

"You are a loser if not a user."

more than most people do. They're original, to say the least of it."

At last Keppock was reached. They made a few inquiries at a farmhouse along the way, and were advised to drive down a certain road leading directly to the beach. So it was not long until the two were seated on a rock, shoes off and bare feet buried in the warm, shining sand.

"Pinch me, Margaret—quick, to see if I'm dreaming. Isn't it great to be alive on a day like this. I know now what Van Dyke felt when he wrote:

'What luck?

Good enough for me!

I'm alive, you see,

Sun shining,

No repining,'

etc., etc. I guess he must have written that on an August day at Keppock Beach."

Just then, from somewhere, appeared—a brown-faced, brown-legged, bare-headed, bare-foot boy, with a pitcher of strawberries in his hand. The girls at once pounced upon him with, "Oh, do you want to sell them—how lovely!" The boy was evidently from a very poor home, for he was a neglected-looking specimen.

"I guess it's time to open my wedding presents," laughed Muriel, as she made her way to the telescope valise and

began to tug at the straps of the same. Then, to her friend's surprise, she took from it a gaily-painted rubber ball and a bag of bright candy of the Christmas-tree style. These she gave, with the money for the strawberries, to the boy.

And the boy opened his big, solemn brown eyes in wonder and joy and admiration. "Golly! are these for me?" he gasped.

"Sure! For you very own self," gaily responded the "bride." Then the boy, waiting only to give one look at the donor—but such a look—took to his heels, along the shore and up through the fields like a hunted deer.

"Well, you are the queerest! Is that the kind of wedding presents they all are?" commented the amused "bridegroom."

"Yes, and they're lots more fun than the other kind. And I hope to do this kind of thing all along our 'tour.' That valise is full of balls and books and dolls and candy, and a few other things for the children that we are sure to meet on our way. Did you see the note tied to the bag of candy? Well, there's one on each, asking whoever gets it to write to me all about his-self or herself, and how they liked the gift. I expect there'll be some of the letters waiting for me when I get back home. I tell you, this is going to be one of the dandiest wedding trips you ever heard of—and not a man to bother us."

Just then from somewhere came voices. The girls looked around, and saw, coming down the wooden steps on the bank—only a little distance away, a number of young people, evidently a picnic party from Charlottetown.

"There's not likely to be anyone there we know," said Muriel, and added, "so we won't mind them, for I know there's a place over here where one can hire dear little row-boats—I'm just aching for a row. Come and let's see if we can find a boat."

So off they went, and had to pass the picnic party—some seated on rocks, and some lying on the sand, but all laughing and talking gaily.

Muriel and Margaret had only gone a little distance when they heard somebody calling: "Miss Ansley! Miss Ansley!" And Miss Ansley turned her head and saw following them two gentlemen from the picnic party. In a moment she recognized—one of her own sawdust men.

There was no help for it—they had to wait. Introductions followed, Margaret to the sawdust man, and the sawdust man's friend to the two ladies.

A few explanations were given, and, somehow—Muriel says to this day she doesn't quite know how—in a very short time two little white row-boats were gliding out towards the harbor. In one was Margaret and the sawdust man's friend; in the other was Muriel and the sawdust man. They seemed in no hurry to return, and after a while the sawdust man began rowing hard. While they were still within speaking distance of the pair in the other boat, he called out: "We are going to row to Charlottetown! Go back to Keppock and stay with the others till we come."

And a little after four o'clock in the afternoon they came back. And this is what Muriel said to Margaret.

"Say, Margaret—like a dear, would you mind very much if—if I finished the wedding trip with someone else? I guess, after all, it will be more fun if its 'really.' And say—Margaret, I'm—I'm—married to—the sawdust man."

The Woods.

Where the heron gives its plaintive cry at night,
And the loon its crazy laughter by the day;

Where the towering pines adorn the dusky height,
And dewy brackens, shimmering, greet the light—

There was I fain to stay.

Oh! snows that pile upon the balmy past,

The brackens, brown and shrivelled, long have lain

Beneath your shroud, yet still defy the blast,

The shattering seasons change, and so outlast

To make spring green again.

—Sophie Earl, in Recreation for January,

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IT is as easy to grow big money-making crops of big wheat as it is to grow ordinary crops of small spindling wheat that never pay anybody any profit. It costs no more for seed, planting or cultivation. A little good fertilizer makes the difference.

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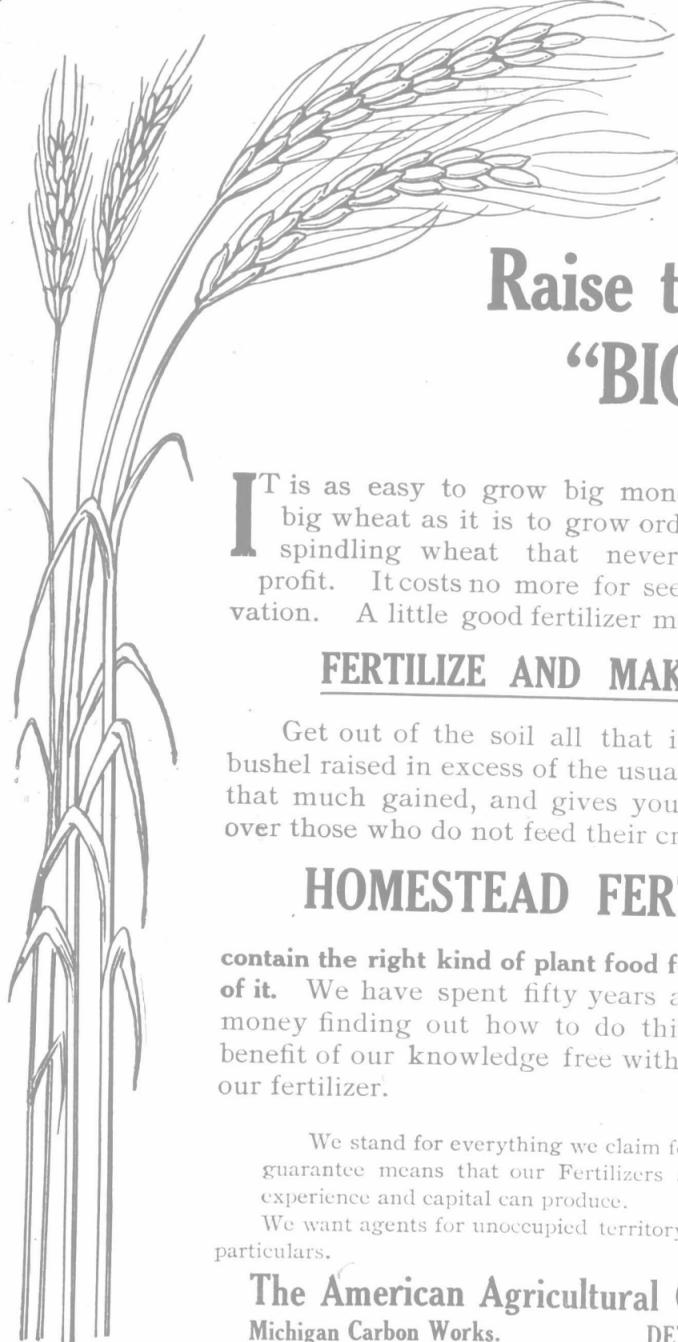
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We stand for everything we claim for our Fertilizers. Our guarantee means that our Fertilizers are the best that skill, experience and capital can produce.

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The American Agricultural Chemical Co.,
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FARM FOR SALE—180 acres, 1st concession Delaware, 3 miles from Southwold Stn., 14 miles from London. Excellent grain and dairy farm; well watered; 6 acres apple orchard; brick house and suitable outbuildings. Apply: Joseph Weld, "Farmer's Advocate," London.

FARM FOR SALE—240 acres, Township Stanley, County Huron; clay soil, 100 acres under high state of cultivation, 15 acres hardwood bush, balance pasture land. First-class buildings; bank barn 100x50; water system in stable; 1½ story frame house with furnace, drive-shed, henhouse, etc.; good bearing orchard. One mile from Village of Varna, churches, school, etc.; 2½ miles from Brucefield station, on Grand Trunk. Apply: John McNaughton, Varna, Ontario.

VANCOUVER ISLAND, BRITISH COLUMBIA, offers sunshiny, mild climate; good profits for men with small capital in fruit-growing, poultry, mixed farming, timber, manufacturing, fisheries, new towns. Good chances for the boys. Investments sale at 6 per cent. For reliable information, free booklets, write Vancouver Island Development League, Room A, 23 Broughton Street, Victoria, British Columbia.

WANTED—Cash paid for Military Land Grants in Northern Ontario. Please state price and location. Box 88, Brantford.

150 OR 200 ACRE FARM FOR SALE—Lot 81, Con. 8, London Township. Well fenced; thorough drainage; good orchard. For particulars apply: Joseph Robson, Vanneck, Ontario.

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.

EGGS—S. O. White Leghorn, heavy layers and prizewinners, 75c. per 15. A hatch guaranteed; \$3.50 per 100. Geo. D. Fletcher, Blakham, Ontario, Erin Sta.

WANTED—A Pea Hen. Apply: J. J. Maackan, St. Catharines, Ontario.

\$6.41 PER HEN—Write for our beautifully illustrated catalogue. Photos from life. B. P. Rocks, White Wyandottes, R. O. R. I. Reds, S. O. White Leghorns. Eggs: \$1.50 per 15; \$2.75 per 30; \$7.00 per 100. L. R. Guild, Box 16, Rockwood, Ont.

ONE AT A TIME.

A magistrate was holding court in a little town. One of the attending counsel held against him an old grudge. While the justice was delivering an opinion he was interrupted by the braying of a jackass without.

"What noise is that?" shouted the justice, full of suspicion that the unfriendly attorney was putting up a job on him.

"It is only the echo of the Court, your honor," said the attorney, smiling.

Not in the least disconcerted, the justice resumed his delivery. Soon, however, the attorney interposed with technical objections, just as the jack brayed again.

"Hold on!" retorted the retaliating justice; "one at a time, if you please."

News of the Week.

Destructive forest fires have been burning near Sault Ste. Marie.

* *

The cyclone which devastated a large portion of Regina last week, also swept over a strip of farming country eleven miles long.

* *

The Government has decided upon Fort Nelson as the terminus for the Hudson Bay Railway from Le Pas.

* *

The Dominion Government will give \$90,000 towards the Regina relief fund, and \$10,000 to Chicoutimi.

* *

The Prince of Wales recently celebrated his eighteenth birthday, thus attaining his legal majority.

* *

Woodrow Wilson, Democrat, will oppose Taft as Republican leader in the contest for the Presidency.

* *

Miss Harriet Quimby, the first woman aviator of America, met death by a plunge of her aeroplane near Boston, on July 1st. On July 2nd, five men, including the inventor, were killed by the bursting of the balloon of Vaniman's dirigible airship at Atlantic City.

* *

The famous trial of the Camorristi in Italy, which has lasted for 554 days, came to an end last week.

Disarming the Gods.

How Chinese, Japanese and Hindoo Boys Prepare for School Life.

Among the eastern nations the beginning of school life is a critical time for the child. The priest or astrologer must be consulted to choose a lucky day. Every precaution must be taken to avert the jealousy of the gods, whose malice is especially directed against a fine boy.

The Chinese father, who adores his son, will take the utmost pains to convince the powers of the air that the boy is of no account. The child may be given a despicable name, like flea or cuttze, a pig; or, more insulting still, he may be given a girl's name. The boy may be started off to school wearing a girl's dress and one earring, and if the deception is complete this will be the most effectual of all, for even the gods do not care for girls in China.

The Japanese schoolboy wears hanging from his belt a little red bag containing a brass tag with his name and his parents' name and address upon it. He must have his paper umbrella and his fan, and in a gray bag upon his arm is a jar of rice for his luncheon. This quaint little fellow has probably made his offering at his own private shrine to Tenjinsen, the god of penmanship.

When the Hindoo boy has found an auspicious day to begin school he is taken to the god of learning, Sarasvati. Here the little supplicant presents his offerings of rice and betel nuts and repeats the letters of the alphabet after the priest. Thus he is entered into the ways of knowledge in the very presence of the god.—EX.

Clover-Patch Philosophy.

An angry wasp and a busy bee
Met once on a clover-head.
The bee at his work hummed merrily,
While the wasp with anger said:
"Why is it that mortals, one and all,
Act kindlier far by you?
I use my sting if they're in my way,
But that is my rightful due.
You do the same, yet they use you well,
But askance at me they look."
Then the wasp waxed wroth and waved
his wings,
"Till the head of clover shook,
The bee worked on. When for flight pre-
pared,
It hovered aloft on wing,
Then paused a moment, and archly said:
"I give more honey than sting."
Jean S. Walker, in the Canada Monthly.

Write for this Booklet and samples of
"HARAB ANIMAL FOODS"

FACTS
FOR
FARMERS
AND
FEEDERS

ON

HARAB DIGESTIVE TANKAGE

FOR FEEDING HOGS

AND

Other High Grade
ANIMAL FOODS

MADE IN CANADA

BY

The Harris Abattoir Co., Limited
TORONTO, ONTARIO

GRAND TRUNK RAILWAY SYSTEM

Only line reaching all Summer Resorts
in Highlands of Ontario,
including

MUSKOKA LAKES
LAKE OF BAYS
ALGONQUIN PARK
MAGANETAWAN RIVER
FRENCH RIVER
TEMAGAMI
KAWARTHA LAKES

Full Summer Service now in effect
to all of above resorts. Write for full
particulars and illustrated folders to
any Grand Trunk Agent.

Homeseekers' Excursions

July 9 and 23 August 6 and 30
September 3 and 17

Via Sarina or Chicago.

WINNIPEG AND RETURN, - \$34.00
EDMONTON AND RETURN, - \$42.00

Tickets good for 60 days.

NO CHANGE OF CARS

Special train will leave Toronto 10.30
p.m. on above dates, via Chicago and
St. Paul, carrying through coaches and
Pullman Tourist Sleeping Cars.

The Grand Trunk Pacific Railway is
the shortest and quickest route between
Winnipeg-Saskatoon-Edmonton.

New Fast Express Service between
Winnipeg and Regina. Smooth road-
bed, Electric lighted Sleeping Cars,
Superb Dining Car Service.

Leave Winnipeg, 6.00 p.m.
Arrive Regina, 7.00 a.m.
" Saskatoon, 8.00 a.m.
" Edmonton, 9.00 p.m.

Ask any Grand Trunk Agent for full
information, or write

A. E. DUFF, D. P. A.,
Union Station, Toronto, Ont.

MENTION "FARMER'S ADVOCATE."

The Auld Hoose.

Oh! the auld hoose, the auld hoose,
What tho' the rooms were wee!
Oh! kind hearts were dwelling there,
And bairnies fu' o' glee;
The wild rose and the jessamine
Still hang upon the wa',
How many cherished memories
Do they, sweet flow'rs, reca'!

Oh! the Auld Laird, the auld Laird,
Sae canty kind and crouse;
How mony did he welcome, to
His ain wee dear auld hoose!
The leddy too, sae genty,
There sheltered Scotland's heir
And clipt a lock wi' her ain hand
Frae his lang yellow hair.

The mavis still doth sweetly sing,
The bluebells sweetly blow;
The bonnie Earn's winding still,
But the auld hoose is awa'.
The auld hoose, the auld hoose,
Deserted tho' ye be,
There ne'er can be a new hoose
Will seem sae fair to me.

Still flourishing the auld pear tree
The bairnies liked to see;
And oh! how often did they speir
When ripe they a' wad be?
The voices sweet, the wee bit feet,
Aye rinnin' here and there;
The merry shout, oh! whiles we greet
To think we'll hear nae mair.

For they a' wide are scatter'd noo!
Some to the Indies gane;
And aye, alas! to her lang hame;
Not here we'll meet again.
The kirkyard, the kirkyard
Wi' flowers o' every hue;
Is sheltered by the holly's shade
And the dark somber yew.

The setting sun, the setting sun!
How gl'drious it gaed doun!
The cloudy splendour raised our hearts
To cloudless skies aboon!
The auld dial, the auld dial!
It told how time did pass;
The wintry winds ha'e dang it doun
Now hid mang weeds and grass.

JULY 11, 1912

THE FARMER'S ADVOCATE.

1263

The Scarlet Pimpernel

A STORY OF ADVENTURE.

By Baroness Orczy.

(Serial rights secured by "The Farmer's Advocate.")

By permission of G. P. Putnam's Sons.

(Continued from last week.)

CHAPTER XXIX.

Trapped.

She did not know how long she was thus carried along; she had lost all notion of time and space, and for a few seconds tired nature, mercifully, deprived her of consciousness.

When she once more realized her state, she felt that she was placed with some degree of comfort upon a man's coat, with her back resting against a fragment of rock. The moon was hidden again behind some clouds, and the darkness seemed in comparison more intense. The sea was roaring some two hundred feet below her, and on looking all round she could no longer see any vestige of the tiny glimmer of red light.

That the end of the journey had been reached, she gathered from the fact that she heard rapid questions and answers spoken in a whisper quite close to her.

"There are four men in there, citizen; they are sitting by the fire, and seem to be waiting quietly."

"The hour?"

"Nearly two o'clock."

"The tide?"

"Coming in quickly."

"The schooner?"

"Obviously an English one, lying some three kilometres out. But we cannot see her boat."

"Have the men taken cover?"

"Yes, citizen."

"They will not blunder?"

"They will not stir until the tall Englishman comes, then they will surround and overpower the five men."

"Right. And the lady?"

"Still dazed, I fancy. She's close beside you, citizen."

"And the Jew?"

"He's gagged, and his legs strapped together. He cannot move or scream."

"Good. Then have your gun ready, in case you want it. Get close to the hut and leave me to look after the lady."

Desgas evidently obeyed, for Marguerite heard him creeping away along the stony cliff, then she felt that a pair of warm, thin, talon-like hands took hold of both her own, and held them in a grip of steel.

"Before that handkerchief is removed from your pretty mouth, fair lady," whispered Chauvelin close to her ear, "I think it right to give you one small word of warning. What has procured me the honour of being followed across the Channel by so charming a companion I cannot, of course, conceive, but, if I mistake not, the purpose of this flattering attention is not one that would commend itself to my vanity, and I think that I am right in surmising, moreover, that the first sound which your pretty lips would utter, as soon as the cruel gag is removed, would be one that would perhaps prove a warning to the cunning fox, which I have been at such pains to track to his lair."

He paused a moment, while the steel-like grasp seemed to tighten round her wrist; then he resumed in the same hurried whisper:—

"Inside that hut, if again I am not mistaken, your brother, Armand St. Just, waits with that traitor de Tourmay, and two other men unknown to you, for the arrival of the mysterious rescuer, whose identity has for so long puzzled our Committee of Public Safety—the audacious Scarlet Pimpernel. No doubt if you scream, if there is a scuffle here, if shots are fired, it is more than likely that the same long legs that brought this scarlet enigma here will as quickly



Heating a Home Properly is Something More Than Raising the Temperature. The air must be pure as well as warm. The health of your family demands it. An odor of gas is not only unpleasant but is a menace to the health. Fine coal dust floating in the air is just as bad.

¶ The HECLA Furnace is absolutely gas and dust proof. The Joints, which in other Furnaces are made with bolts and cement, are fused in the HECLA. This process welds the cast-iron and steel into a solid one-piece construction.

¶ Expansion and contraction cannot spread the fused joint. Even after 20 years of service, the joints in the HECLA will be found perfectly tight. The fumes from the fire cannot find an opening. The air in the living rooms is always pure and healthful.

HECLA FURNACE

For Coal and Wood

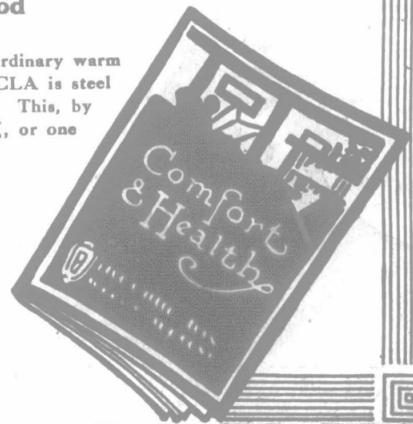
Ribbed Fire-Pot



This healthful heating costs less than ordinary warm air heating. The fire-pot of the HECLA is steel ribbed to radiate the heat rapidly. This, by actual test, makes a saving of 13½%, or one ton of coal in seven.

Do you want to give more thought to the heating of your home?

"Comfort & Health" will interest you. It is a book on sane heating. Your address on a post card will bring it.



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Dept. L, Preston, Ont.

CANADIAN PACIFIC RAILWAY

UPPER LAKES NAVIGATION

Steamers leave Port McNicoll Mondays, Tuesdays, Wednesdays, Thursdays and Saturdays at 4 p.m. for

SAULT STE. MARIE, PORT ARTHUR and FORT WILLIAM

The steamer Manitoba, sailing from Port McNicoll Wednesdays, will call at Owen Sound, leaving that point 10.30 p.m.

Steamship Express

leaves Toronto 12.45 p.m. on sailing days, making direct connection with steamers at Port McNicoll.

Dominion Day SINGLE FARE

Between all stations in Canada, Port Arthur and East. Good going June 28, 29, 30, July 1. Return limit, July 3. (Minimum Rate of 25c.)

Homeseekers' Excursions

June 25, July 9 and 23, and every Second Tuesday until Sept. 17 inclusive.

WINNIPEG and RETURN - \$34.00

EDMONTON and RETURN - \$42.00

Proportionate rates to other points. Return limit 60 days.

THROUGH TOURIST SLEEPING CARS

Ask nearest C. P. R. Agent for Homeseekers' Pamphlet.

WINNIPEG EXHIBITION, July 10th to 20th, 1912

TICKETS AND FULL INFORMATION FROM ANY C. P. R. AGENT

An Englishman and an Irishman made a bet which could swim the longest. On the day of the race the Irishman came to the shore in a bathing suit and a large satchel on his back. The Englishman asked him what he had in the bag. "Provisions for three days," coolly answered Pat.

"The bet's off," said the Englishman, as he handed Pat the money.

A few days later he heard that Paddy couldn't swim a stroke.

BULLETIN 33

Learn "How to get rid of hen lice with one application of Avenarius Carbolinum a year." How to paint silos, barns, fences, shingles, etc., to preserve against decay. "Country Gentlemen" says: "Every reader should have it." Tested on Dominion Farms; highly recommended by Mr. Gilbert, poultry manager. Canadian orders filled from Montreal stock. Write to-day.

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Send your name and address to our Canadian office nearest you—say you want our "style book and samples"—and we will promptly mail you a finer selection of genuine English suitings than any tailor in Canada can show you. Compare the quality with what you are now wearing—compare prices, too—read what our Canadian customers say—and you'll discover a way to get

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For Half What YOU Pay YOUR Clothier

Suits that Catesbys Ltd. make to measure for \$10 and \$12 (delivered to any address in Canada, all charges and duty prepaid) cannot be bought in Canada for less than \$20 to \$35. Such splendid tweeds, serges, etc., are seldom found outside of England, even at highest-priced tailoring establishments—as you will realize if you will get our FREE samples.

From the FREE Samples We Send

you can select the very material you like best—fill out the simple self-measurement form, send your order to London, and have the finished suit delivered to you (all shipping charges and duty prepaid) within a few weeks' time.

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CORNER BISHOP AND ST. CATHERINE STREETS, MONTREAL, or
160 PRINCESS STREET, WINNIPEG, MAN., or write direct to
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Others \$14, \$16.20, \$18

Our Style Book Shows

other models in two and three-piece suits all fashioned on the "English styles" now being featured by the best Canadian tailors at two and three times our prices. Tell us what style you like best and we'll make your suit that way. We guarantee perfect fit and satisfaction or your money back. 307

"Don't Eat Them ALL, Grandpa!"

It's no wonder Maple Buds taste good, and it's no wonder mothers everywhere are encouraging the little folks to spend their pennies for them.

Maple Buds are nothing more than the best of chocolate, pure milk and sugar—things the doctor would recommend to build up a sickly child. The most delicate child can digest them.

The distinctive flavor of Maple Buds is entirely due to the use of only the best chocolate. The fine velvety texture comes from grinding and grinding through innumerable steel rollers.



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Name and Design Registered. 204

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Unless They're COWAN'S

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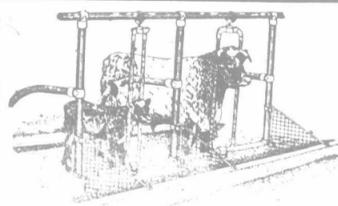


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Butter Eggs Poultry Honey
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Our constantly growing trade demands large supplies of choice farm products. We need yours. Write for weekly market letter.

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STABLE YOUR CATTLE THE SUPERIOR WAY

By doing so you will give them the greatest advantage in producing the maximum of the highest priced product. With SUPERIOR equipment you will have the greatest possible SANITATION, COMFORT, CONVENIENCE and DURABILITY in stable construction for very little expense.

If building or remodeling, write for our free book, before you decide on your equipment. Drop us a card today. Agents wanted.

The Superior Barn Equipment Co.
Fergus, Canada

When Writing Advertisers, Please Mention "The Farmer's Advocate"

take him to some place of safety. For a purpose then, for which I have travelled all these miles will remain unaccomplished. On the other hand, it rests with yourself that your brother—Armand—shall be free to go off to-night if you like to England, or any other place of safety."

Marguerite could not utter a sound, as the handkerchief was wound very tightly round her mouth, but Chauvelin was peering through the darkness very closely into her face; no doubt too her hand gave a responsive appeal to his last suggestion, for presently he continued:—

"What I want you to do to ensure Armand's safety is a very simple thing, dear lady."

"What is it?" Marguerite's hand seemed to convey to his, in response.

"To remain—in this spot, without uttering a sound, until I give you leave to speak. Ah! but I think you will obey," he added, with that funny dry chuckle of his, as Marguerite's whole figure seemed to stiffen, in defiance of this order, "for let me tell you that if you scream, nay! if you utter one sound, or attempt to move from here, my men—there are thirty of them about—will seize St. Just, de Tournay, and their two friends, and shoot them here—by my orders—before your eyes."

Marguerite had listened to her implacable enemy's speech with ever-increasing terror. Numb with physical pain, she yet had sufficient mental vitality in her to realize the full horror of this terrible "either—or" he was once more putting before her; an "either—or" ten thousand times more appalling and horrible, than the one he had suggested to her that fatal night at the ball.

This time it meant that she should keep still, and allow the husband she worshipped to walk unconsciously to his death, or that she should, by trying to give him a word of warning, which perhaps might even be unavailing, actually give the signal for her own brother's death, and that of three other unsuspecting men.

She could not see Chauvelin, but she could almost feel those keen, pale eyes of his fixed maliciously upon her helpless form, and his hurried, whispered words reached her ear, as the death-knell of her last faint, lingering hope.

"Nay, fair lady," he added urbanely, "you can have no interest in anyone save in St. Just, and all you need do for his safety is to remain where you are, and to keep silent. My men have strict orders to spare him in every way. As for that enigmatic Scarlet Pimpernel, what is he to you? Believe me, no warning from you could possibly save him. And now, dear lady, let me remove this unpleasant coercion, which has been placed before your pretty mouth. You see, I wish you to be perfectly free in the choice which you are about to make."

Her thoughts in a whirl, her temples aching, her nerves paralyzed, her body numb with pain, Marguerite sat there, in the darkness which surrounded her as with a pall. From where she sat she could not see the sea, but she heard the incessant mournful murmur of the incoming tide, which spoke of her dead hopes, her lost love, the husband she had with her own hand betrayed, and sent to his death.

Chauvelin removed the handkerchief from her mouth. She certainly did not scream; at that moment she had no strength to do anything but barely to hold herself upright, and to force herself to think.

Oh! think! think! think! of what she should do. The minutes flew on; in this awful stillness she could not tell how fast or how slowly; she heard nothing, she saw nothing; she did not feel the sweet-smelling autumn air, scented with the briny odour of the sea; she no longer heard the murmur of the waves, the occasional rattling of a pebble, as it rolled down some steep incline. More and more unreal did the whole situation seem. It was impossible that she, Marguerite Blakeney, the queen of London society, should actually be sitting here on this bit of lonely coast, in the middle of the night, side by side with a most bitter enemy; and oh! it was not possible that somewhere, not many hundred feet away perhaps from where she stood the being she had once despised, but who was in every moment of this weird dream to be, became more and

GOVERNMENT EXPERT Chooses SHARPLES Tubular Cream Separators for His Three Farms



Like other shrewd farmers, Mr. Anson Groh, widely known agricultural lecturer employed by the Government, knows the money to be made in dairying. He has succeeded because he knows profit is of far greater importance than first cost. Mr. Groh is seen sitting in this picture, with his family and assistants, before his country home. Like others making most money from dairying, Mr. Groh selected the Tubular in preference to all others because the Dairy Tubular contains no disks or other contraptions, has twice the skimming force of other separators, skims faster and twice as clean, and pays a profit no other can pay. Mr. Groh says:

"Preston, Ontario, May 26, 1912.—Some years ago we selected the Sharples Tubular. After a few years' use we found it necessary to get another separator for another farm and selected a No. 6. After several years' service of these two machines, we would not think of introducing anything else on our third farm, recently purchased. ANSON GROH."

Now you understand why owners of other separators are discarding their machines by carloads for Tubulars. Follow the example of Mr. Groh and the many others who have succeeded. Buy a Tubular for the sake of double skimming force, easy cleaning, and all the profits.

Get quick attention by asking for Catalog 193 **The Sharples Separator Co.**
Toronto, Ont. Winnipeg, Man.

GRAHAM & RENFREW COMPANY CLYDESDALES AND HACKNEYS

Our winnings at all shows are your guarantee that whatever you buy from us will be the best in the land. You cannot afford to buy without first seeing our importations.

Address all correspondence to Bedford Park P.O., Ont. Telegrams to Toronto. Telephone North 4483, Toronto.

BLAIRGOWRIE IS OFFERING AT PRESENT:

CLYDESDALE MARES, imported and Canadian-bred, from one year up to 5 years; also a pair of Canadian-bred stallions, rising three years. Young cows with calves by side, and heifers well on or in calf. Children's ponies, well broken and quiet, from 1½ to 14 hands. Myrtle, C. P. R. Sta. L.-D. Phone. **JOHN MILLER, JR., Ashburn, P.O.**

Clydesdales, Imp., Just Arrived Our new importation has arrived safely, and we are now in a position to supply the trade with stallions from 1 year old up to 4, with more draft character, big, strong, flat bone, and better breeding than any other firm in the trade. Prices and terms as favorable as any other importer in Canada. **BARBER BROS., GATINEAU PT., QUEBEC, NEAR HULL.**

A Few Choice Clyde Fillies—I am offering several choice and particularly well-bred Clydesdale fillies from foals of 1911 up to 3 years of age, imp. sires and dams. Also one stallion colt of 1911, imp. sire and dam. These are the kind that make the money. **HARRY SMITH; Hay P.O., Ont. Exeter Sta. L.-D. Phone.**

BIG QUALITY CLYDESDALES

We have them on hand imported this year, Stallions and Fillies, many of them winners, the best blood of the breed, with size, character and quality. There are none better and no firm can sell cheaper. **R. NESS & SON, Howick, Que.**

CLYDES, SHIRES, PERCHERONS

Now offering 8 imp. Clydesdale fillies, rising 3 years; 1 imp. Clydesdale stallion 12 years, a good one, and several stallions 2 and 3 years; one Shire stallion, sure foal-getter; two black Percheron stallions, 6 and 8 years, and one Thoroughbred stallion. All will be sold at bargain prices. **T. D. ELLIOTT, Bolton, Ont. Long-distance Phone.**

IMP. CLYDESDALE STALLIONS AND FILLIES In my late importation of Clydesdale stallions and fillies I have exceptionally choice breeding idea draft characters; as much quality as can be got with size, and I can under-sell any man in the business. Let me know your wants. **GEO. S. STEWART, Howick, Que. L.-D. Phone.**

Mount Victoria Stock Farm, Hudson Heights, P. Q.

We have for service this season the champion imp. Clydesdale stallions, Netherlea, by Pride of Blacon, dam by Sir Everard; also Lord Aberdeen, by Netherlea, and the champion Hackney stallion, Terrington Lucifer, by Copper King. For terms and rates apply to the manager. **T. B. MACAULAY, Prop. ED. WATSON, Manager.**

We still have on **Clydesdale Stallions** with both size and quality, all prize-winners and breeding of the best blood in Scotland. Prices and terms the best in Canada. **John A. Boag & Son, Bay View Farm, Queensville, Ont.** Long-distance Phone. On the Toronto & Sutton Radial Railway Line.

ORMSBY GRANGE STOCK FARM, Ormstown, P. Que. My fall importation, which will be the largest yet made by me, will be personally selected, will arrive last week in September. Good colors, heavy bone, best of pedigrees and reasonable prices. Wait for them if you want good ones. **D. McEachran.**

CLYDESDALES (Imported) CLYDESDALES SPRING HILL Top Notchers. Stallions, mares and fillies. 65 per cent. guaranteed with stallions. Every mare guaranteed in foal. Ages, 3 years old and upwards. **J & J. SEMPLE** Milverton, Ontario, and La Verne, Minnesota

Please Mention The Advocate

more dear—it was not possible that he was unconsciously, even now walking to his doom, whilst she did nothing to save him.

Why did she not with unearthly screams that would re-echo from one end of the lonely beach to the other, send out a warning to him to desist, to retrace his steps, for death lurked here whilst he advanced? Once or twice the screams rose to her throat—as if by instinct; then, before her eyes there stood the awful alternative: her brother and those three men shot before her eyes, practically by her orders: she their murderer.

Oh! that fiend in human shape, next to her, knew human—female—nature well. He had played upon her feelings as a skillful musician plays upon an instrument. He had gauged her very thoughts to a nicety.

She could not give that signal—for she was weak, and she was a woman. How could she deliberately order Armand to be shot before her eyes, to have his dear blood upon her head, he dying perhaps with a curse on her, upon his lips. And little Suzanne's father, too! he, an old man! and the others!—oh! it was all too, too horrible.

Wait! wait! wait! how long? The early morning hours sped on, and yet it was not dawn: the sea continued its incessant mournful murmur, the autumnal breeze sighed gently in the night: the lonely beach was silent, even as the grave.

Suddenly from somewhere, not very far away, a cheerful, strong voice was heard singing, "God save the King!"

(To be continued.)

QUESTIONS AND ANSWERS.

- 1st.—Questions asked by bona-fide subscribers to "The Farmer's Advocate" are answered in this department free.
- 2nd.—Questions should be clearly stated and plainly written, on one side of the paper only, and must be accompanied by the full name and address of the writer.
- 3rd.—In Veterinary questions the symptoms especially must be fully and clearly stated, otherwise satisfactory replies cannot be given.
- 4th.—When a reply by mail is required to urgent veterinary or legal enquiries, \$1.00 must be enclosed.

Miscellaneous.

POULTRY HOUSE.

Will you give me some directions for building a henhouse with gable roof for fifty hens, in two flocks, one with all modern improvements and inexpensive. If I wanted an earthen floor, how would it be built to make perfectly dry, and would it cost more than a board floor, and which would you prefer? **J. H.**

Ans.—One of the most satisfactory poultry houses to meet the needs of the average farmer is the open-front house, recommended by Prof. W. R. Graham, O. A. C., Guelph, Ont. This house, for 100 hens, is built 20 x 20 feet, with an open front facing the south. The south side is 3 feet high, with a board along the bottom, and 2 feet of wire netting. The back is 4 feet 6 inches high, and the gable 7 feet high. The door is in the east end, and a large window is placed in the west end, 4 feet by 5 feet. Hinged low roosts run along the north side. For a smaller number of hens, a slightly shorter house of the same style could be used. Partition it across the center with wire netting to make it into two compartments. This is a cheap house, and has proven to be a good one. An earthen floor is simply a ground floor, no boards or cement being used. Ground floors are preferable to board floors. Barring expense, cement makes a good floor. Place the building on dry ground, and, if necessary, underdrain around it. Write Prof. W. R. Graham for his bulletin on Farm Poultry.

An old North Countryman visiting London put up at one of the big hotels. He had barely turned in on the first night when the "buttons" rushed into the room and switched on the electric light, exclaiming, "Make haste, sir! Get up! The hotel is on fire!" The old man slowly raised himself on one elbow and, fixing the boy with a determined look, remarked: "Mind ye, if I do I winna pay for the bed."

Horse Owners! Use GOMBAULT'S

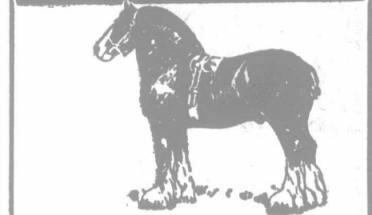


Caustic Balsam

A Safe, Speedy, and Positive Cure

The safest, Best BLISTER ever used. Takes the place of all liniments for mild or severe action. Removes all Bunches or Blemishes from Horses and Cattle. SUPERSEDES ALL CAUTERY OR FIRING. Impossible to produce scar or Blemish. Every bottle sold is warranted to give satisfaction. Price \$1.50 per bottle. Sold by druggists, or sent by express, charges paid, with full directions for its use. Send for descriptive circulars. **The Lawrence-Williams Co., Toronto, Ont.**

INSURE YOUR HORSES



Your Stallion is Worth Insuring Against Death

For an equal premium we grant a more liberal Policy than any other Company. We issue Policies covering all risks on animals. Horse shipments insured for 5, 10, 15, 20 or 30 days at very low premiums. Prospectus Free on Demand

General Animals Insurance Co. of Canada
Head Office, 71A St. James St., Montreal
OTTAWA BRANCH: 106 York St., Ottawa
TORONTO AGENCY: J.A. Caesar, Room No. 2, James Building, Toronto, Ontario

Dr. Page's English Spavin Cure

For the cure of Spavins, Ringbones, Curbs, Splints, Windgalls, Capped Hocks, Strains or Bruises, Thick Neck from Distemper, Ringworm on Cattle, and to remove all unnatural enlargements. This preparation (unlike others, acts by absorbing rather than blistering. This is the only preparation in the world guaranteed to kill a Ringbone or any Spavin, or money refunded, and will not kill the hair. Manufactured by Dr. Frederick A. Page & Son, 7 and 9 Yorkshire Road, London, E. C. Mailed to any address upon receipt of price, \$1.00. Canadian agents: **J. A. JOHNSTON & CO., Druggists, 171 King St. E. TORONTO, ONT.**

THICK, SWOLLEN GLANDS

that make a horse Wheeze, Cough, have Thick Wind or Choke-down, can be removed with **ABSORBINE** also any Bunch or Swelling. No blister, no hair gone, and horse kept at work. \$2 per bottle delivered. Book \$1 free. **ABSORBINE, JR.**, Liniment for mankind. Reduces Gout, Tumors, Wens, Painful, Knotted Varicose Veins, Ulcers. \$1.00 and \$2.00 a bottle at dealers of delivered. Book with testimonials free. **W. F. YOUNG, P.D.F., 258 Lyman Bldg., Montreal, Ca.**

STOP THIS WITH COOPER'S FLY KICKER

It pays to keep your stock free of flies—contented cows give ½ more milk; horses work harder and on less feed. Costs less than ½ cent a head per day. Use Cooper's Fly Kicker and save money. Easy to use—economical—efficient—safe. Quarts (Imperial) 50c; Gallons (Imperial) \$1.25. Special circular free—tells what others say about Cooper's. Any dealer or **WM. COOPER & NEPHEWS - - TORONTO**

Ohio Improved Chester White Pigs for Sale
EDW. HANSELMAN, LYNNVILLE, QUE.

Facts About McClary's "Sunshine" Furnace

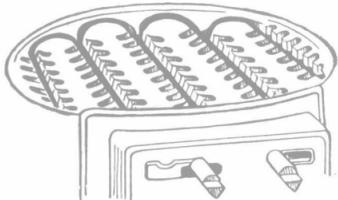
—The Understudy of the Sun—

The Fire-pot of the "Sunshine" is made of Semi-Steel—that of the ordinary furnace is made of Grey Iron.

Here's the difference—Destructive sulphur fumes penetrate Grey Iron easily because it is porous. Semi-steel is not porous—it is a close-grained material with a smooth surface secretly processed by McClary's. Gas fumes cannot penetrate Semi-Steel therefore it lasts longer. The "Sunshine" Fire-pot is built in two sections joined together with our famous cup joint. The shape of this joint, combined with a layer of McClary's asbestos cement, makes it absolutely gas, smoke and dust-proof.

Clearly, the "Sunshine" is the premier furnace as far as the Fire-pot is concerned.

The Grates of the "Sunshine" Furnace have three sides each. Plainly, they have three times the endurance of one-sided grates. Every time you rock down the ashes of the "Sunshine" you can expose a fresh side of the grate to the fierce heat of the fire—lengthen the life of the grates.



And the short, strong teeth of "Sunshine" grates simply grind up clinkers. The "Sunshine" Furnace is the best as far as grate construction goes.

Shaking an ordinary furnace is hard, back-breaking labor. You don't need to shake the "Sunshine"—you simply rock

it and the ashes drop into the ash-pan. A child can easily rock the grates of a "Sunshine"—merely another reason why you should buy a "Sunshine" Furnace.

Ordinary furnaces are called coal glut-tions. There may be good reasons for that—we don't know. But—we have built the "Sunshine" Furnace so that it is very easy on coal. Hundreds of people now using the "Sunshine," and having used ordinary furnaces, declare that the "Sunshine" makes two tons of coal do the work of three. Evidently, the "Sunshine" Furnace saves coal and money.

The ordinary furnace has a water-pan hidden somewhere about the base. There, it cannot carry out the purpose for which the water-pan was devised. The water-pan of the "Sunshine" Furnace is placed scientifically above the



radiator near the dome—the heat laps up the water, before being diffused all over the house. It contains the same amount of moisture as the air of a balmy June day. Plainly, as far as the water-pan is concerned, the "Sunshine" is the furnace you should buy.

There are many more reasons why you should invest your money in "The Understudy of the Sun"—McClary's "Sunshine" Furnace. Call on the McClary agent and ask him to show you all the mechanical reasons and exclusive devices which go to make the "Sunshine" the best and therefore the cheapest furnace you can buy. Write us at our nearest address if you cannot get in touch with him.

LONDON
TORONTO
VANCOUVER
ST. JOHN, N. B.

McClary's

MONTREAL
WINNIPEG
HAMILTON
CALGARY

THE SPICE OF LIFE. SAW THROUGH THEM.

In a recent election in a little town of North-west Arkansas, one of the candidates for city marshal received only five votes out of some five hundred cast. He took his defeat very much to heart, and had many bitter things to say of the "political" ring that he claimed had brought about his defeat. To a friend who was sympathizing with him he unburdened himself. "They think I ain't on to their little game," said he, "but I know why they worked and voted against me. They didn't want me to be city marshal. That's why."

Joke-seller—Did you receive my letter and that batch of jokes?

Editor—I received the letter, but I didn't see the jokes.

Union Stock Yards of Toronto, Ltd.

HORSE DEPARTMENT

Auction Sale Every Wednesday

Private Sales Every Day

Railroad Loading Facilities at Barn Doors

W. W. SUTHERLAND,
In Office.

J. H. ASHCRAFT, JR.,
Manager.

Clydesdale Stallions and Fillies



Our past record for many years in the leading show-rings of Canada and in the yearly increase in volume of business is our best recommendation. This has been our best filler. We have still some of the best of last year's importation in both stallions and fillies. We solicit your trade and confidence.

SMITH & RICHARDSON, Columbus P.O., Ont.

Brooklin G. T. R. Myrtle C. P. R. Ottawa C. N. R.

GOSSIP.

D. M. Watt, breeder and importer of high-class Ayrshire cattle, St. Louis Station, Que., has just landed from Scotland with nineteen head of fine Ayrshires. In the lot is the champion two-year-old heifer of Scotland. This heifer was bred and exhibited by Thomas Bair, of Hobsland. She is in calf to Masterpiece, a bull recently imported by R. R. Ness, Howick, Que., and still in quarantine. The importation is a good one.

Hickman & Scruby, exporters of pedigree stock, Court Lodge, Egerton, Kent, Eng., report trade with them exceedingly good. They have done far more horse business than ever before. Late shipments have been sent to most parts of North America, and a seventh consignment is about to be shipped to an old customer who is known to the firm only by correspondence. This speaks well for the manner in which they fill their mail orders. Satisfaction to all is the motto of Hickman & Scruby. If interested in live-stock importing, give them a chance.

John Miller, importer and breeder of Scotch Shorthorns, Shropshire and Cotswold sheep, Brougham, Ont., in ordering change for advertisement, says: I have sold all the young bulls advertised in your paper. I have a fine lot coming on for next winter, all sired by Upper-mill Omega. One extra good September calf, from a Lavender dam, that some feeder should have that wants to show this fall. My imported sheep will be home about the first of August, and as there is a dozen yearling rams in the lot, think any breeder in want of a good flock-header should see them. I never was in better shape to supply good home-bred rams and ewes, also a fine lot of lambs of both breeds.

SENSATIONAL JERSEY SALES.

At the fourth annual sale of Jerseys, by W. R. Spann, at Shelbyville, Kentucky, May 27th, 90 head were reported sold for an average of \$372, the highest price being \$5,100, for the five-year-old bull Fontaine's Chief, purchased for Undulatta Farm. The top price for a female was \$1,075, for Noble's Financial Daisy, purchased for Elmendorf Farm. The yearling heifer, Noble's Eminent Nelly, was also taken by Elmendorf Farm, at \$1,000. The Jersey Bulletin says: When the sale of Fontaine's Chief was nearly closed, a mail bidder from Canada "threw his hat in the ring" and forced the agent of Undulatta to pay \$5,100 for him.

At the annual sale from the herd of T. S. Cooper & Sons, Coopersburg, Pa., on May 30th, 162 head sold for an average of \$490, despite very unfavorable weather and following the Spann sale. Elmendorf Farm was the largest buyer, taking 21 head, at a cost of \$14,610, or an average of \$695.71. The highest price for a cow was \$3,200, for the five-year-old Warder's Fawn Beauty. Seven others sold for prices ranging from \$1,700 to \$2,900. Among the buyers was the firm of B. H. Bull & Son, of Brampton, Ont., who secured, among others, the bull Violet's Bright Prince, at the bargain price of \$600.

TRADE TOPIC.

Help is one of the problems of the farm. The Heller-Aller Company, of Windsor, Ont., manufacturers of ball-bearing wind-engines, galvanized steel towers, sub-structures, towers, and tank systems of all kinds, Baker gasoline engines, house-tanks, valves, floats, and everything connected with a water system, have just issued their general catalogue, No. 28, a well-illustrated, indexed volume of nearly 300 pages, with a memoranda in the back. Along with this has come a similar booklet, "Water Systems for the Farm, Country Home, and Village." This, too, is an educative booklet. All are interested in water systems. See the company's advertisement in another column, and write for the catalogue and booklet.

"How's everything at your house?" asked Smith.
"Oh," replied Brown, "she's all right."

Cure That Lame Horse Without Risking A Penny

We Take All The Risk, And Protect You With A \$1000 Guarantee Bond



WE want to show you that there isn't any affliction causing lameness in horses that can't be cured, no matter how long standing. We will do this for you absolutely free. Fill out the "Free Diagnosis Coupon" and send it to us at once.

It means money to you to relieve your horse of its misery at once. Ask us—and you will get the best and most reliable diagnosis absolutely free. All you have to do is to fill out the "Free Diagnosis Coupon," mark just where your horse has a swelling, sore or any one of the big number of possible causes for lameness, and send it to us. We will then give the coupon to our trained Veterinary Specialist for his expert diagnosis. This diagnosis is invariably correct. We then inform you of the cause of your horse's lameness and the remedy that will absolutely cure him. We do all this for nothing.

Be Positive, Know What You Are Doing and know that you are treating the right spot in the right way. Don't disfigure your horse and reduce his market value. Write to us. Get our "Free Diagnosis." You paid good money for him when he was sound. What is he worth to you now, or anyone else when he has a Spavin, or Ringbone, Thoroughpin, Curb, Capped Hock, Shoe Boil, Sprung Knee, Ruptured Tendons, Sweeney, or any one of a hundred different causes of lameness that your horse might be heir to. You know that he isn't worth 50 per cent, nor 25 per cent of his original value.

He Asks You To Please Send This

Relieves Cases Formerly Considered Incurable

No matter how long your horse has been lame, or what the nature of his lameness, you can absolutely rely upon Mack's \$1,000 Spavin Remedy. We know of many cases where owners have paid out big fees and had valuable animals tortured with "dripping," "blistering" and other good-for-nothing methods and as a last resort tried Mack's \$1,000 Spavin Remedy, and were amazed at the painless, positive, quick and permanent cure.

Nearly Every Mail Brings Us Letters Like the Following

"The remedy you sent me cured the two horses that the hoof was coming off. The mule's foot was nearly off when I got the medicine, but in five days the mule was able to walk on it. The horses are working every day, and have been since using your remedy the third day. It is the best medicine I ever saw for the foot. Our Vet. said those horses would not be able to work in 12 months, but he sees his mistake now. I recommend your medicine to every one as I know it is all O. K." Yours truly, Ludwici, Ga., Dec. 7, 1910. J. T. COLLINS.

"I am pleased to tell you that Mack's THOUSAND DOLLAR SPAVIN REMEDY has proved far beyond my expectations. My horse had been lame with side bones on each side of foot for about eighteen months, and I had thought of shooting him at different times. I tried to work him but he would go so bad he would hop along on three legs. My neighbors told me he would never be of any use as they had had horses with the same trouble. I tried other remedies without success, but am working him now and he is sound, and have tested him well. I recommend your Mack's \$1,000 Spavin Remedy to all." Yours truly, Summerland, B. C., Dec. 4, 1910. E. H. STEWART.

Your Druggist Will Obtain Mack's \$1,000 Spavin Remedy For You if you ask him. Price \$2.50 per bottle. If he refuses, remit \$2.50 to us and we will see that your order is filled without delay. Every bottle is absolutely guaranteed, and is accompanied by our \$1000 Warranty Bond, which insures you that your money will be refunded if the remedy fails to do all we claim for it, as stated in our guaranty.

McKALLOR DRUG COMPANY
Binghamton, N. Y.

FREE DIAGNOSIS COUPON



On picture of horse mark with an X just where swelling or lameness occurs, then clip out coupon and mail to us with a letter, telling what caused the lameness, how long horse has been lame, how it affects the animal's gait, age of horse, etc.

We will tell you just what the lameness is, and how to relieve it quickly. Absolutely no charge. Write today.

Free Book "Horse Sense" Send us the Free Diagnosis Coupon, get absolutely free a copy of our book "Horse Sense" which describes and illustrates diseases of horses' limbs, shows correct name for every part of horse and tells valuable facts every horse owner ought to know.

LYMAN BROS. & CO., Toronto, Distributors to Drug Trade

RID YOUR CATTLE OF THE FLY PEST

With the warm summer days come the yearly torture of domestic animals by flies, mosquitoes and other insects. Prevent this useless suffering by buying

COW COMFORT



an inoffensive yet powerful liquid preparation that will rid your animals of the flies that swarm about them; destroys lice, ticks, fleas; cures skin diseases, scabs, tetters, etc.; cleans, disinfects and removes offensive odors.

You know that animals cannot be healthy when devoured by insects; you know how quickly hogs decline in weight when they are troubled with vermin; by preventing suffering to your cattle you not only perform an act of humanitarianism, but insure perfect health to your animals, and profit by it in the end.

Sold in gallon cans at \$2 each, but as the contents of a can are to be diluted in four gallons of water, it makes the price really 40c. a gallon. Special "Sapho" sprayer, 50c. Descriptive circular sent free upon request.

DISTRIBUTORS FOR ONTARIO:

THE McLAREN IMPERIAL CHEESE CO., LIMITED, WOODSTOCK, ONT.

THE SAPHO MANUFACTURING COMPANY, LIMITED
386 Henri Julien Ave. (formerly Sanguinet St.) MONTREAL, QUEBEC



ORCHARD GROVE HEREFORDS
Champions of 1911 shows, winning both senior and junior herds at Winnipeg, Brandon, Regina, Edmonton, Toronto and London; also fifteen championships. Young stock, both sexes, for sale at reasonable prices. L. O. CLIFFORD Oshawa, Ont. Long-distance 'Phone



Shire Stallions and Mares, Shorthorn Cattle (both sexes); also Hampshire Swine. Prices reasonable.
Porter Bros., Appleby, Ont., Burlington Sta. 'Phone.

SALEM SHORTHORNS

Headed by Gainford Marquis, undefeated bull of three countries. See our show herd at the leading fairs, starting at Winnipeg. J. A. WATT, SALEM. ELORA STA., G. T. and C. P. R.

QUESTIONS AND ANSWERS. Veterinary.

LUMPS ON ABDOMEN.

A lump formed on cow's abdomen last winter. It reduced in size this spring, but is still quite large, and another has formed beside it. They are hard, and tender to the touch. Is her milk fit for use?
W. B. C.

Ans.—It is not possible to say without a personal examination whether these are abscesses or tumors. If the former, they should be lanced, and the cavity flushed out three times daily until healed with a five-per-cent solution of carbolic acid. If the latter, they could be dissected out. It would be wise to employ a veterinarian to operate. The milk is not likely to be affected. It is not possible to tell what causes them. V.

PARTIAL DISLOCATION.

The fetlock joint of a yearling colt becomes partially dislocated and snaps back again at every step. Also the muscles about the hip joint are shrinking.
J. B.

Ans.—Get a blister made of 1½ drams each of biniodide of mercury and cantharides mixed with 2 ounces vaseline. Clip the hair off all around the joint. Tie so that he cannot bite the parts. Rub well with the blister once daily for two days. On the third day apply sweet oil and turn him in a loose box, or in small field, and oil every day. As soon as the scale comes off, blister again, and after this blister once every month until the joint becomes strong. Also blister the hip monthly until the muscles fill out again. V.

PARTIAL PARALYSIS.

Mare foaled on June 2nd and became partially paralyzed. We sent for our veterinarian, who treated her and left treatment for her, and said he thought she would be all right in a couple of weeks. She has not yet full control of her hind legs, and she wobbles when she walks, and the muscles of her hips are shrinking. Would it be wise to breed her again?
J. L. B.

Ans.—It is not possible for a veterinarian to tell just how long it will take for a cure to be effected in such cases, or if a perfect cure will ever result. It is quite probable if you consulted your veterinarian again he would advise the administration of 2 drams nux vomica three times daily, and if the muscles have not filled out again in a few months to blister them. I think it would be all right to breed her again if she is strong enough to stand service. V.

Miscellaneous.

HAY-STACKING DERRICK.

Could you get me some information about a hay-stacking outfit. I have a tripod derrick thirty feet high, and I have heard of a beam or pole suspended by the center and a hay-fork attached to one end and a rope to the other, and running through a pulley at bottom of derrick leg, it acts like a crane for unloading hay, etc., from wagon to a stack. A SUBSCRIBER.

Ans.—We have never seen such a derrick, but it looks as though it might work. As you have the derrick, it would not be very much trouble to try it. Readers who have had experience with this particular device will confer a favor by communicating it for publication.

In one of the large cities a primary teacher was one day instructing her class in the composition of sentences. She wrote two sentences on the blackboard, one a misstatement of fact, and the other wrong grammatically. The sentences were: "The hen has three legs," and "Who done it?" "Willie," she said to one of the youngsters, "go to the board and show where the fault lies in those two sentences." "Willie slowly approached the board, evidently studying hard. Then he took the crayon and wrote: "The hen never done it. God done it."



HOUSE FLIES

are hatched in manure and revel in filth. Scientists have discovered that they are largely responsible for the spread of Tuberculosis, Typhoid, Diphtheria, Dysentery, Infan tile Diseases of the Bowels, etc. Every packet of

WILSON'S FLY PADS

will kill more flies than 300 sheets of sticky paper.



Messrs. Hickman & Scruby
COURT LODGE, EGERTON, KENT, ENG.

EXPORTERS OF
Live Stock of all Descriptions
Draft horses of all breeds a specialty. Intending buyers should write us for particulars, as we can place before them the most attractive proposition they have yet experienced. We can send highest references from satisfied buyers of nearly all breeds.

NOTICE TO HORSE IMPORTERS

GERALD POWELL

Commission Agent and Interpreter
Nogent Le Rotrou, France
will most 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.

Balmedie Aberdeen-Angus—I am offering for sale young bulls and heifers of the highest type of the breed. Show stock in show condition a specialty. Bred on the most popular lines. **Thos. B. Broadfoot, Fergus Sta., Wellington Co., Ont.**

Aberdeen-Angus—A few bulls to sell yet; also females. Come and see them before buying. Drumbo Station.
Walter Hall, Washington, Ont.

1854 Maple Lodge Stock Farm 1912

Have some **SHORTHORN HEIFERS** two years old from cows giving 50 pounds milk per day, and in calf to my stock bull, Senator Lavender. Grand young **LEICESTERS** from imp. Wooler of Sandy Knowe, champion at Toronto, and imp. Royal Connaught.

A. W. SMITH, MAPLE LODGE, ONTARIO
Lucan Crossing, G. T. Ry., one mile.

"The Manor" Scotch Shorthorns

Present offering: Three choice yearling bulls. Young cows in calf. Yearling heifers: Clippers, Minas, Wimples, Julias, etc. Inspection solicited. Prices moderate. Phone connection.

J. T. GIBSON, DENFIELD, ONTARIO

Shorthorns of Show Calibre

At present one nice red bull 12 months old (of the Bellona family) for sale at low price. Heifers of breeding age all sold.

Geo. Gier & Son, Grand Valley, Ont.

SPRING VALLEY SHORTHORNS

Hard headed by the two imported bulls, **Newton Ringlander, =73783=**, and **Scottish Pride, =36196=**. The females are of the best Scotch families. Young stock of both sexes for sale at reasonable prices. Telephone connection.

KYLE BROS. - - Ayr, Ontario

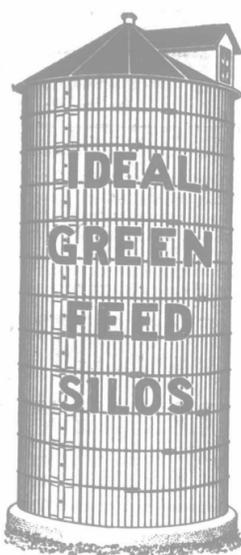
OAKLAND SHORTHORNS I

Present offering is five choice young bulls, from 7 to 22 months old, reds and roans, out of good dual-purpose dams, and sired by our champion Scotch Grey bull 72692. Visitors find things as represented. Good cattle and no big prices.

JOHN KILDER & SON, HENSALL, ONTARIO

At the wedding reception the young man remarked: "Wasn't it annoying the way that baby cried during the whole ceremony?"

"It was simply dreadful," replied the prim little maid of honor; "and when I get married I'm going to have engraved right in the corner of the invitations: 'No babies expected.'"



Are Sweeping the Silo Field

Orders and inquiries are coming in faster than ever before.

Canadian dairymen are coming to realize the advantages of the Silo and appreciate just how much better the Ideal Green Feed Silo is than any other make.

Here are some of the points of superiority which make these Silos so popular:

Material: Canadian Spruce especially selected for our own use.

All lumber is saturated with a solution which prevents rot and decay and reduces the tendency of the staves to swell or shrink and adds two or three times to the life of the Silo.

Hooped with heavy round iron hoops every 30 inches apart.

Only malleable iron lugs are used.

All doors on the Ideal Green Feed Silos are self-sealing.

Doors are only 6 inches apart, can be removed instantly and are always air tight. The roof is self-supporting; built without rafters.

Dormer window facilitates filling Silo clear to the top. All sizes furnished.

*Write for Our New
Silo Catalogue To-Day.*

De Laval Dairy Supply Co., Ltd.

LARGEST AND OLDEST SILO
MANUFACTURERS IN DOMINION.
173 William Street, MONTREAL
14 Princess Street, WINNIPEG



Lump Rock Salt, \$10.00 for ton lots, f.o.b. Toronto
Toronto Salt Works, 128 Adelaide St. E.,
G. J. CLIFF, MANAGER. Toronto, Ont.

WILLOW BANK STOCK FARM Shorthorns and Leicesters



Herd established 1855, flock 1848, have a special good lot of Shorthorns of either sex to offer of various ages; also a grand lot of Leicester sheep of either sex—a few imported ones to offer.

JAMES DOUGLAS
Caledonia, Ontario

Shorthorns and Swine—Am now offering a very choice lot of cows and heifers, safe in calf, and some choice young bulls for the fall trade; also Berkshire and Yorkshire pigs; showyard material.

ISRAEL GROFF, Elmira Ont.

QUESTIONS AND ANSWERS. Miscellaneous.

COW POX.

1. Can cow pox be cured? What is the treatment?
2. Many cows here have trouble resembling cow pox. Appears during July and August, and very sore; spreads to about all of the cows in the herd, then no more trouble for another year. Pimples and scabs appear on teats, which are quite sore. Is that cow pox?
3. Veterinary book says milk from such cows is not fit for food. Is that generally accepted, as it would be a serious matter here? G. C.

Ans.—1, 2 and 3. The trouble is likely cow pox, which is an infectious disease, and may be conveyed from one cow to another on the hands of the milker. This explains why all the cows in the herd get it, when the same milker attends the ailing and the healthy cows. Infected cows should be milked by one person, and he should not milk healthy cows, at least until he has thoroughly disinfected his hands. This disease generally takes two or three weeks to run its course, and in some cases leaves lumps at the base of the teats. Dress the sores with an ointment made of boracic acid 4 drams, carbolic acid 20 drops, vaseline 2 ounces, mixed. The milk in a bad case should not be used.

TURKEYS DIE.

I had fifty turkeys this year hatched out in good health and vigor. After about four weeks old they began to die. I fed them dry oatmeal, and gave them clean water to drink with a few drops of carbolic acid in it every time I fed them. They seemed to have diarrhea. Is there any cure? If so, let me know as soon as possible. I greased them with lard and sulphur, so they were free from lice. Would you please let me know what my turkeys died with, and the cause of it; and would it be well to change the feed? R. E.

Ans.—It certainly would be advisable to change the feed. Omit the carbolic acid altogether. Feed on shorts, moistened, but not made sloppy, with some milk or buttermilk. Feed in small quantities four or five times daily. Keep water in a separate trough. Also give sour milk to drink. About one-fifth of the ration should be green feed in the form of onion tops, etc., cut up fine. Never overfeed. Keep troughs scrupulously clean. Examine for lice, and if still troubled, use insect powder and more lard. Use the grease on the heads only. The diarrhea may be caused by running in the cold, damp grass. Feeding a few old bread crumbs and hard-boiled eggs is often effectual in checking it.

Veterinary.

SCROTAL HERNIA.

Four-weeks-old colt has a rupture right beside the sheath. I have bandaged without success. R. M.

Ans.—This is called scrotal hernia, and it is not possible to bandage to do any good. If the rupture is gradually increasing in size, it will be necessary to operate at once, but if it is not becoming larger, leave it alone and it is probable it will disappear before he is a year old, but sometimes they do not disappear until the second year, and sometimes not at all without an operation. It requires a veterinarian to operate. V.

INFECTIOUS OPHTHALMIA.

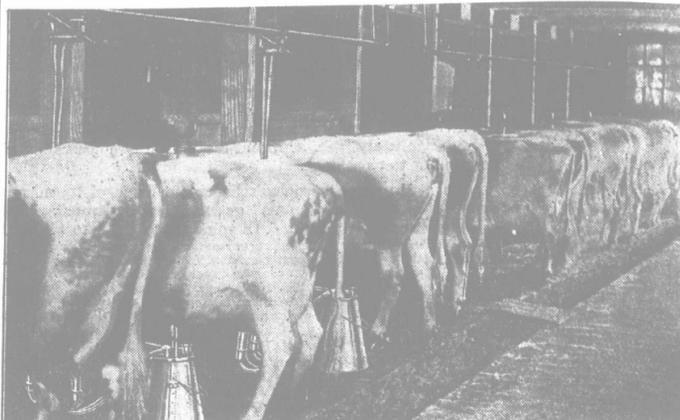
A month ago my ram got sore eyes. A white scum formed, and he went blind in one eye. Now two ewes are showing similar symptoms. J. A.

Ans.—This is an infectious disease of the eyes. Isolate the diseased. Keep excluded from drafts and strong sunlight. Purge each with 8 ounces Epsom salts. Bathe the eyes well three times daily with hot water, and after bathing put a few drops of the following into each eye, viz.: Sulphate of zinc, 15 grains; fluid extract of belladonna, 20 drops; distilled water, 2 ounces. If after inflammation is allayed the eyes appear glassy or whitish, get a lotion made of 5 grains nitrate of silver to 1 ounce distilled water, and put a few drops in three times daily. V.

WORLD'S LARGEST SEPARATOR FACTORY

STANDS BACK OF

The SHARPLES Milker



SHARPLES MECHANICAL MILKER in operation on farm of S. Vessott & Co., Joliette, Quebec, breeders of Pure bred Ayrshires

You can now install the Sharples Mechanical Milker with the same assurance of satisfaction you would feel if you bought a Sharples Tubular Separator. We stand squarely back of both machines and guarantee complete satisfaction to the user. The Sharples Mechanical Milker is our latest and greatest contribution to the science of dairying. You will marvel at its simplicity, its mechanical excellence and its ability to make you absolutely independent of hired help. You will be astonished by the remarkable ease with which **one man can milk 45 cows in a single hour**, and by the thoroughness with which the work is done.

"The Teat Cup with the Upward Squeeze"

prevents any possible injury to your herd—makes the Mechanical Milker as practical now as the cream separator has been for years. Our Free Catalogue explains all about it—tells what the owners of some of the world's highest priced dairy cows, where Sharples Milkers have been in daily use, or more than two years, think of this wonderful machine. Briefly explained, the Sharples "Teat Cups," after each suction stroke, squeeze the teats (by compressed air) from the points upward, crowding back the blood into general circulation, thus preventing all swelling, fever and teat congestion.

Write for Catalogue M See for yourself how the Sharples Mechanical Milker will add \$30 to \$150 extra to your dairy profits and make you entirely independent of hired help. WRITE TO-DAY.

THE SHARPLES SEPARATOR COMPANY, WEST CHESTER
Pennsylvania
Toronto, Can.; Winnipeg, Can. Agencies Everywhere.

Present Special Offering

- 20 High-Class Scotch Shorthorn Heifers
- 10 High-Class Young Shorthorn Cows
- 5 High-Class Scotch Shorthorn Bulls

At moderate prices, including Marr Missies, Emmas, Cruickshank Nonpareils, Duchess of Glosters, Village Girls, Bridesmaids, Butterflies, Kinellar Clarets, Miss Ramsdens, Crimson Flowers; also a number of the grand old milking tribe, which have been famous in the showing.

ARTHUR J. HOWDEN & CO.
Columbus, Ontario



Shorthorn Bulls and Clydesdale Mares

If you are in the market for a young bull, write us for particulars, or, better still, come and see them. We have 13 young bulls, from 8 to 14 months old, of good breeding and quality. We also have four imported Clydesdale mares, safe in foal.

W. G. PETTIT & SONS, Freeman, Ontario

Bell phone.

Burlington Jct. Sta., G. T. R., 1/2 mile from farm

SHORTHORNS

Have now a choice lot of young bulls to offer; and with something nice in heifers. Catalogue of herd and list of young animals on application.

H. CARGILL & SON, Proprietors, Cargill, Ont., Bruce Co.
JOHN CLANCY, Manager



Scotch Shorthorns

FOR SALE. Imported Bandsman, a grand individual and an extra sire; one 10 months imported bull calf; a Marr Flora; 30 choice cows and heifers in calf; at reasonable prices. Farm 1/2 mile from Burlington Jct. Station.

MITCHELL BROS., Burlington, Ont

THIS IS A GOOD TIME, AND I HAVE A GOOD PLACE, TO GET A HIGH-CLASS SCOTCH SHORTHORN BULL CALF by my great Whitehall Sultan sire, or a young cow in calf to him, to start a herd that will be gilt-edged. SHROPSHIRE RAMS AND EWES, too, at low prices. CHILDREN'S PONIES. A CLYDESDALE FILLY, such as I can send you, is one of the best things any man can buy. Just write me and say as nearly as possible what you want, and I will surprise you with prices on goods that are genuine. **ROBERT MILLER, STOUFFVILLE ONTARIO**

Scotch Shorthorn Females for Sale I am offering at very reasonable prices, females from one year to five years of age. The youngsters are by my grand old stock bull, Scottish Hero (imp.) = 55042 = (90065), and the older ones have calves at foot by him, or amongst them. A. EDWARD MEYER, Box 378, GUELPH, ONT.

IMPORTED BULL FOR SALE

Fletcher's Shorthorns—(Imp.) Spectator = 50994—, and choice heifers for sale

ED. D. FLETCHER, Binkham, Ont.
Eric St., C. P. R.

Balaphorene A. J. Jerseys—Foundation stock, St. Lambert, Comassie, Combination; stock from a grandson of Bim of Dentonia; also a grandson of the great Blue Blood of Dentonia, for sale. W. W. Vandotte eggs, \$1 per 13. **Joseph Seabrook, Havelock, Peterboro Co., Ont.**

Brampton Jerseys

Bulls fit for service are getting scarce. Just a few left. Yearling heifers in calf are in great demand; 6 for sale; 6 now being bred. Brampton Stockwell the sire. A few good cows and some calves for sale. Production and quality.

B. H. BULL, & SON, BRAMPTON ONT.,

SUFFERED WITH LAME BACK

WAS NOT ABLE TO STRAIGHTEN UP

Mr. C. Grace, Hamilton, Ont., writes: "I was suffering with lame back, and for two weeks was not able to straighten up to walk, and hardly able to sit down for the pains in my back, hips and legs. I had used different kinds of pills, plasters, liniments and medicines, without any relief. One day there was a B.B.B. book left at our door, and I read about Doan's Kidney Pills, and I decided to try them. Before I had half a box used I felt a great deal better, and by the time I had used two boxes I was cured. I have no hesitation in recommending Doan's Kidney Pills to all suffering as I did, or from any illness arising from diseased kidneys.

Price 50 cents per box, or 3 boxes for \$1.25, at all dealers, or will be mailed direct on receipt of price by The T. Milburn Co., Limited, Toronto, Ont.

When ordering direct, specify "Doan's."

Cow-Ease

Prevents Ticks. **KEEPS FLIES OFF Cattle and Horses**

and allows cows to feed in peace, making More Milk and More Money for you. A clean, harmless liquid preparation, applied with a sprayer. Keeps cows in good condition, and saves five times its cost in extra milk.

TRIAL OFFER

If your dealer cannot supply you, send us his name and \$1.25, and we will deliver prepaid to your address a half-gallon can of COW-EASE and SPRAYER for applying. For West of Missouri River and for Canada, above Trial Offer, \$1.50.

Satisfaction or Money Back. CARPENTER-MORTON CO. BOSTON, MASS.

Purebred Registered Holstein Cattle

The most profitable dairy breed, greatest in size, milk, butter-fat and in vitality. Send for FREE illustrated descriptive booklets. HOLSTEIN-FRIESIAN ASSO. F. L. Houghton, Sec'y, Box 127, Brattleboro, Vt.

Holsteins of Quality

Write us to-day for our proposition, telling you how any good dairyman may own a registered Holstein bull from a Record-of-Performance cow without investing a cent for him. **Monro & Lawless, "Elmdale Farm," Thorold, Ont.**

The Maples Holstein Herd offers a splendid lot of bull calves, all sired by Prince Aggie Mechthilde and all from record of merit dams. For pedigrees and prices write

WALBURN RIVERS, Folden, Ontario

MINSTER FARM Offers YORKSHIRES of both sexes, and a HOLSTEIN BULL CALF from a daughter of P. P. C. Burke, whose daughters are testing from 4.4 to 5.5% fat; sired by Lakeview Burke Payne, whose dam and sire's dam average 23.14; his sire has 10 sisters averaging 30.63. For extended pedigree write: **RICHARD HONEY & SONS, BRICKLEY, ONT.**

Maple Grove Holsteins Herd headed by King Lyons Hengerveld, the greatest 30 lbs. back butter-bred bull of the breed in this country. For stock of this kind, address: **H. BOLLERT, Tavistock, R. R. No. 5, Ontario**

Maple Line Holsteins and Yorkshires—Herd headed by Homestead Colantha Sir Abbecker 2nd, whose dam, sire's dam, g. dam, average 29.61 lbs. butter 7 days. For sale at bargain prices, choice bull calves from R. O. P. cows. **W. A. BRYANT, Middlesex Co., Cairngorm, Ont.**

When Writing Mention Advocate

QUESTIONS AND ANSWERS. Miscellaneous.

RULE OF THE ROAD.

If you are driving along the road with half a load on and you catch up to another wagon that is empty and you want to go by, are you obliged to ask him to let you go by, and is he obliged to give you half the track, or is he supposed to give you half the track without asking when he knows you want to go by? J. C.

Ans.—In overtaking a rig travelling in the same direction as you are, and you wish to travel at a faster pace than the one ahead is going, turn out to the left, and the driver in the lead is obliged to give you half the road.

BLADDER CAMPION—ORANGE HAWKWEED.

Identify the two specimens of weeds inclosed. They were found growing in meadow. E. O. H. Stormont Co., Ont.

Ans.—No. 1 is bladder campion (*Silene latifolia*). The stems of this weed grow from 1 foot to 18 inches high, are smooth, have white flowers nearly an inch across, which have a fine-toothed, inflated calyx, resembling a small bladder. It is a noxious perennial weed, having running rootstocks, and during recent years has been widely distributed. The remedy is to cut clover in which it is very early, and then plow the land deeply and fallow it thoroughly throughout the remainder of the season, and hoe the following year. Avoid sowing clover on land polluted with this weed. A short rotation of crops to suppress it, must allow of deep and thorough cultivation each spring before seeding. Cutting crops for green feed is a help. Clean, thorough cultivation, is the best remedy.

No. 2 is orange hawkweed (*Hieracium aurantiacum*), a low-growing perennial, with creeping, very hairy, milky-sapped branches. Erect flowering stems run up from one to two feet, and bear fire-orange-red flowers in heads about an inch across. This weed is often found in pasture fields. Its roots are close to the surface, and in land which can be plowed, plowing down, followed by surface cultivation, will kill it. Break up infested meadows and place under a rotation of crops. Salt applied to small patches in permanent pastures will eradicate it.

LIGHTNING RODS.

Could you give us any information about lightning rods for buildings? All agents of rods say they are a grand thing, but we have only their word for it, and would like to hear from some person who knows. W. H. S.

Ans.—Lightning rods are a protection against loss from lightning when properly erected. On all bars over 40 feet in length, we recommend that rods be run down the gables and into the ground at both ends. The rods must be placed in the ground deep enough to reach moisture at all seasons of the year. Rods made of wire should be at least three-eighths of an inch in diameter, and should be down at least five to seven feet, and sometimes more. Home-made rods may be made of strands of wire twisted together by fastening the ends of the wires to the spokes of a wagon wheel. Attach the other ends to a stake driven into the ground at the right distance and braced. Allowance must be made for a six-inch shrinkage per 100 feet in twisting. Raise the wheel off the ground as if for greasing. Brace the wagon firmly and turn the wheel. Twist only enough to make cable hold together. Points may be made of pieces of cable 6½ feet long, cut off the main rod. Open out 1½ feet at lower end for wrapping around and connecting with rod. A few inches of the upper end should be opened out and spread in all directions. Blacksmith-made standards should be got to hold points upright. Points should be placed about 20 feet apart. If an agent erects the rods, insist upon having sufficient points and also that the rods are put far enough into the ground.

WORRIED.

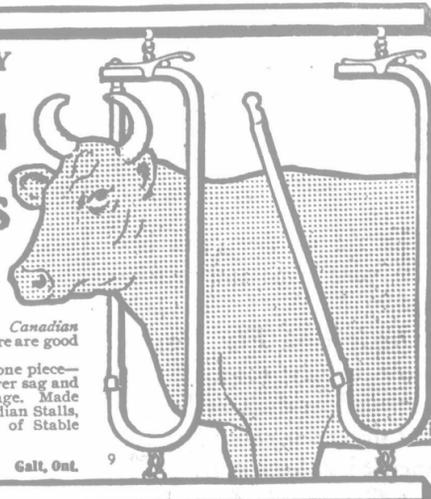
Excited Best Man (making arrangements)—And—er—is it customary to cuss the bride?

FACTS—NOT THEORY —ABOUT

O.K. CANADIAN U-BAR STEEL STANCHIONS

When big stables like the Central Experimental Farm at Ottawa—the new barn at Silver Spring Dairy Farm, Ottawa—the Erindale Farm at Toronto—are equipped with O.K. Canadian U-Bar Patented Steel Stanchions—there are good reasons for it. O.K. U-Bar Steel Stanchions are of one piece—have no rivets or joints—therefore never sag and stand up against the most severe usage. Made in 5 sizes. We also make O.K. Canadian Stalls, Water Basins and a complete line of Stable Equipment. Write for catalogue.

Canadian Potato Machinery Co., Limited, Galt, Ont.



KING SEGIS WALKER

The highest pedigreed sire in Canada. Average record of dam, gr. dams, and g. gr. dams: Butter, 28.36 lbs.; milk, 544.42 lbs.; fat, 4.24 lbs. Fee for service, \$25. This sire's get are 80 per cent females. For sale: A grandson of King Segis and Pontiac Pet, record 37.67 lbs. butter and the world's champion; also a bull calf whose dam is a daughter of Pontiac Korndyke, and just completed a record of 722 lbs. in 7 days. **A. A. FAREWELL, OSHAWA, ONTARIO**

LAKEVIEW HOLSTEINS!

Bull calves sired by Dutchland Colantha Sir Mona, and out of heifers sired by Count Hengerveld Fayne De Kol.

Telephone. **E. F. OSLER, BRONTE, ONTARIO**

Fairview Farms Herd

Is where you can secure a son of Pontiac Korndyke, admitted by all breeders to be the greatest Holstein sire that ever lived. Look what his daughters are doing. Two of them with records over 37 lbs. each. Then, look at the work his sons are doing. HE IS THE GREATEST PRODUCING SIRE OF THE BREED, THROUGH HIS SONS. Every son of Pontiac Korndyke that has daughters old enough to milk is a sire of good ones. We can offer you several young ones that will give you great daughters. **E. H. DOLLAR, HUEVELTON, N. Y.**

Near Prescott

SUMMER HILL HOLSTEIN CATTLE and YORKSHIRE HOGS

Our senior herd bull, Sir Admiral Ormsby, is the sire of the world's record 2-year-old for yearly butter production. Also sire of the three highest record four-year-olds in Canada. The dam of our junior herd bull made 34.60 lbs. butter in 7 days, and gave 111 lbs. milk per day. Come and make your selections from over 70 head.

In Improved English Yorkshires we have won 95 per cent. of all first prizes at Toronto Exhibition for ten years. We are still breeding them bigger and better than ever.

Buy Summer Hill Yorkshires, the big, quick-maturing kind, and double your profits.

D. C. FLATT & SON, R. F. D. No. 2, Hamilton, Ontario, Bell 'phone: 2471, Hamilton.

HOLSTEINS, YORKSHIRES, HACKNEYS

Our herd of over 30 Holstein females, from calves up, are for sale. Come and make your own selection. In Yorkshires we have a large number of young sows, bred and ready to breed, of the Minnie and Bloom tribes. Also one two-year-old Hackney stallion; black with white points. No fancy prices asked. **A. Watson & Sons, R. R. No. 1, St. Thomas, Ont. L.-D. 'phone from Fingal.**

EVERGREEN STOCK FARM

Present offering: Two young bull calves; good individuals; nicely marked and well bred; the dam of one of them being Uncia Abbecker, the cow that topped the consignment sale of the Oxford District Holstein Breeders' Club. Priced right for immediate sale. **A. E. Hulet, Norwich, Ont.**

Silver Creek Holsteins

We are now offering about a dozen yearling heifers and 3 young bulls. They are all of superior type, and 7-day records that average 27 lbs., is at head of herd. **A. H. TEEPLE, CURRIE P. O., Ont., Woodstock Station. 'Phone connection.**

Stockwood Ayrshires

are coming to the front wherever shows. This herd is now headed by White Hill Free Trader (Imp.) No. 33273, championship bull at Sherbrooke; also headed the 1st-prize aged herd. Stock of all ages for sale. Satisfaction guaranteed.

D. M. WATT, ST. LOUIS STATION, QUE. Telephone in house.

GLENHURST AYRSHIRES

Established over 50 years ago, and ever since kept up to a high standard. We can supply females of all ages and young bulls, the result of a lifetime's intelligent breeding: 45 head to select from. Let me know your wants. **JAMES BENNING, Williamstown P.O., Summerstown Sta., Glengarry**

CHERRYBANK AYRSHIRES!

We are offering 5 young bulls fit for service, from dams of 40 lbs. to 50 lbs. daily of 4% milk. Anything else in the herd priced reasonable. This herd won over \$1,200 prize money in 1911. **P. D. McArthur, North Georgetown, Que.**

AYRSHIRES FOR SALE

Seven bulls and a few heifers of different ages, sired by Woodroffe Comrade, whose first heifer in milk, gave 11,392 lbs. milk, 480 lbs. butterfat in one year. Prices right. **H. C. HAMIL, BOX GROVE P. O., ONT. Markham, G. T. R.; Locust Hill, C. P. R. Bell 'phone connection from Markham.**

Ayrshires and Yorkshires—We have still some good young bulls. Now is the time to buy for the coming season, before the best go. We have females any age, and can fill orders for carlots of Ayrshires. Pigs of either sex on hand. **ALEX. HUME & CO., Menie, Ont.**

City View Ayrshires

All from R. O. P. ancestors. Young bulls of January, March, May and July, 1911; also calves of 1912. Right good ones. Males only for sale. Write, 'phone or call. **JAMES BEGG, R. R. No. 1 half mile west. ST. THOMAS, ONT.**

Hillcrest Ayrshires

At head of herd is Ivanhoe of Tanglewild, a son of the champion Ayrshire cow, Primrose of Tanglewild. R. O. P. test 16,195 lbs. milk and 625.62 lbs. fat; 60 head to select from. Inspection invited. **F. H. MARRIS, Mt. Elgin, Ont.**

STONEHOUSE AYRSHIRES

Are coming to the front wherever shown. Look out for this at the leading exhibitions. Some choice young bulls for sale, as well as cows and heifers. **HECTOR GORDON, Howick, Quebec.**



Get rid of them and help make your home and premises sanitary by the liberal use of **Tanglefoot Fly Paper**. There is fully one-third more compound per sheet on **Tanglefoot** than on any other fly paper; hence it lasts longest, catches the most flies and is the best and cheapest fly paper. If you ask for "fly paper" or "sticky fly paper" you may get a cheap imitation that will soon dry up or glaze over. Ask for **Tanglefoot**.

Sold by Grocers and Druggists.

TREE TANGLEFOOT, put up in 1, 3, 10 and 20 lb. cans, Will protect your trees from all climbing insects.

SALT

Ask your dealer for **RICE'S SALT**

The old reliable brand. It is purer than any other make, and you get better satisfaction and value. Besides, you know it is made from Canada's purest brine.

FOR ALL PURPOSES

North American Chemical Co.
CLINTON, ONTARIO

NO HITCH.

"Did her wedding go off without a hitch?"
"It did, indeed—the man she was going to marry didn't show up."

IF YOU WISH TO BE WELL YOU MUST KEEP THE BOWELS OPEN

Any irregularity of the bowels is always dangerous, and should be attended to at once. If the bowels cease to work properly, all the other organs become deranged.

Milburn's Laxa-Liver Pills work on the bowels gently and naturally, and will cure the worst cases of constipation. Mrs. J. Hubbard, Port Colborne, Ont., writes:—"I have tried many remedies for constipation and never found anything so good as your Milburn's Laxa-Liver Pills. We always keep a vial in the house, for we would not be without them. I always recommend them to my friends."

Milburn's Laxa-Liver Pills are 25 cents per vial, or 5 vials for \$1.00, at all dealers, or mailed direct on receipt of price by The T. Milburn Co., Limited, Toronto, Ont.

QUESTIONS AND ANSWERS. Miscellaneous.

A MEADOW WEED.

What is the enclosed weed? Middlesex Co., Ont. D. D. R.

Ans.—The weed sent is one of the "everlastings," of which there are several very similar species. In old pastures, particularly where the soil is light and gravelly, they make more or less extensive patches, and are commonly known as cudweeds, pussy toes, or mouse-ears. The leaves are usually small, about an inch long and white, woolly beneath. They would be harmless if they did not, by their mat-like growth, crowd out the grass. It is therefore advisable whenever their silvery brush-like flowers make their appearance, to hoe them out. In fields where ordinary crop rotation is pursued, they do not get a foothold. D.

FALSE FLAX.

I have a field of fall wheat badly seeded with false flax. What would be the best way to clean it out of field? Would you advise threshing wheat in field so as to avoid danger of spreading through manure to other fields?

SUBSCRIBER.

Ans.—False flax is a noxious weed in winter wheat. Where practicable, hand-pulling is advisable. Make it a point to avoid winter crops on land polluted with seeds of this weed. Harrowing fall wheat in early spring kills most of the weed without doing harm to the wheat. Where the weed is especially thick, continuous cultivation throughout an entire season is necessary. A thorough summer-fallowing is the best. If the manure is not thoroughly rotted in the yard, it might be better to thresh in the field and avoid any danger of taking the seed to other fields. Any of the grain fed should be ground.

INJURED TEAT.

Have a good grade cow that got a cut in one teat about three-quarters of an inch from the end, while dry in a wood-pasture lot last fall. I brought her home a few days before she calved in October, 1911, and found milk leaking out at the side. My veterinarian told me I better not touch it until she was dry again. I tried to heal it, and used a tube, but the quarter went almost dry, so that it does not leak except when milking. Would it be advisable to have it done when she is dry again, or will that quarter always remain dry?

F. R.

Ans.—It is more than likely that a permanent injury has been done the quarter. If so, treatment to bring back the flow from it would be unavailing. Encourage secretion in the quarter by milking it regularly and hand rubbing. A correspondent recently advised the use of ordinary shoemaker's wax for punctured teat. Simply warm the wax until it drops, and place it in the hole and allow to cool.

TWO ALFALFA WEEDS.

I am sending under another cover two weeds I found growing in alfalfa. They are new to me. What are they? Kindly tell us about them, and oblige.

W. H. S.

Grey Co., Ont.

Ans.—These two new plants have been introduced in alfalfa seed. The one that resembles in stem and foliage a cross between a burdock and a mullin, is a species of sage—*Salvia Sclarea*. In Europe it is called Clary, and it is said to be used in some parts of the continent for flavoring soups and liquors. The flower is rather pretty, but the aspect of the plant is too coarse to commend it for the flower garden. It is not likely to be troublesome as a weed.

The other plant, *Centaurea calcitrapa*, is also an introduction from the Old World. Its common name is Caltrop, literally, heel-traps, suggested by the stout, straw-colored spines an inch long at the base of the flower. These suggest the four-pronged iron caltrops scattered in the battlefield when a cowardly attack was feared. The body of the plant resembles some of the sow thistles, but it is easily distinguished by the stout spines below the flower. These make it so conspicuous, and look so formidable, that it is likely to be noticed and attacked wherever it may happen to get introduced. D.

CANUCK BRAND

Baby Chick Feed and Scratch Feed

Are made up from pure grains in proper proportions to secure best feeding value and most satisfactory results. Write for full information and give name of your feed dealer.

The Chisholm Milling Co'y
Toronto, Ontario

Shropshires and Cotswolds!

In SHROPSHIRE I have for sale 35 imp. shearling rams and ewes from some of England's best flocks, a lot of fine home-bred rams and ewes bred from Minton and Buttar ewes. In COTSWOLDS a lot of rams and ewes, and an extra good lot of lambs. A few of each bred fitted for showing. Order early and get a good choice. Prices very reasonable.

Claremont Station, C. P. R., three miles.
Pickering Station, G. T. R., seven miles.

John Miller, Brougham, Ont.

IMPORTED SHEEP

Those wishing an imported ram, a few choice imported ewes or a few show sheep to make up their show flock, should write me, after this date, to

MOLESCROFT, BEVERLEY, E. YORKS, ENGLAND

C. HODGSON,

Brantford, Ontario

Cattle and Sheep Labels

Size	Price doz.	Fifty tags
Cattle	75c.	\$4.00
Light Cattle ..	60c.	1.50
Sheep or Hog ..	40c.	1.00

No postage or duty to pay. Cattle sizes with name and address and numbers; sheep or hog size, name and numbers. Get your neighbors to order with you and get better rate. Circular and sample mailed free. F. G. JAMES, Bowmanville, Ont.

Southdown Sheep

Orders taken now for this season's delivery. A few choice lambs and shearlings on hand. Every animal shipped is guaranteed.

Angus Cattle

Write, or come and see my young bulls and heifers. They are going at farmers' prices.

ROBT. MCEWEN, Byron, Ont.

AMERICAN SHROPSHIRE REGISTRY ASSOCIATION
Only Shropshire Association recognized by U. S. Government Largest membership of any live-stock association in the world. Life membership \$5.00. No yearly dues. Write for information. J. M. WADE, SECRETARY, LAFAYETTE, INDIANA

MAPLE GROVE YORKSHIRES

AS GOOD AS ANY.

S. H. Jack (imp.) champion and silver medal boar at Toronto for three successive years at head of the herd. Present offering: Fifteen young sows all good, being bred. Eight young boars fit for use; choice long fellows of excellent breeding, and younger pigs of various ages. Pairs not related. Our prices will suit the average farmer, but are consistent with the best quality. Stock shipped C. O. D. and on approval. Correspondence and personal inspection invited. Long-distance phone via St. Thomas.

H. S. McDIARMID, FINGAL, ONTARIO
Shedden Station, P. M. and M. C. R.

Registered Tamworths—Merton Lodge

is offering Tamworths, either sex, from six weeks to four months old. The true bacon type, having great bone and length. We pay express charges and guarantee satisfaction.

W. W. GEORGE, Crampton, Ont.

HAMPSHIRE SWINE

Both sexes and all ages, from imported stock. Prices reasonable.

C. A. POWELL, Arva, Ontario
Four miles north of London.

ELMHURST LARGE ENGLISH BERKSHIRES

Present offering: Select sows. Choice boars ready for service also younger stock, the get of Duke of Somerset imp., and out of imported dams. Satisfaction and safe delivery guaranteed. H. M. VANDERLIP, Breeder and Importer, CAINSVILLE P. O. Langford station, Brantford and Hamilton Radial.

Ohio Improved Chester White Pigs—Largest

strain, oldest registered herd in Canada. Choice lot of spring pigs; pairs and trios not akin; register; express paid; safe delivery guaranteed.

E. D. GEORGE & SONS, Putnam, Ont.

Tamworths—We can supply Tamworth

Swine both sexes and any age, bred from the champions of Canada; show stock a specialty.

D. DOUGLAS & SONS, Mitchell, Ontario.

Maple Villa Yorkshires and Oxford Downs. We offer 30 splendid

service boars; 50 strictly choice sows, bred and ready to breed; also ewes of quality bred to imp. rams.

J. A. CERSWELL, Bond Head, Ont.

Hampshire Hogs—We have the greatest prize-

winning herd of Hampshire Swine in Canada, bred from the best strains of the breed; stock of both sexes not related. Hastings Bros. Crosshill P. O., Ont., Linwood Sta., C.P.R., Newton Sta., G.T.R. Telephone in residence.

Morrison Tamworths

Bred from the prize winning herds of England; choice stock for sale; also Shorthorns of the deep milking strain.

CHAS. CURETIE, Morrison, Ontario

Hampshire Pigs

PRESENT OFFERING—7 Sows in pig from imported stock. Write for prices. Long-distance phone.

J. H. RUTHERFORD, Box 62, Caledon East, Ont.

The Tamworths in Canada—I have a par-

ticularly nice lot of young Tamworths just now of both sexes, from youngsters up to breeding age. If you want the best types of the breed, write me. HERBERT GERMAN, St George, Ont. Long-distance phone.

POLAND CHINA SWINE FOR SALE

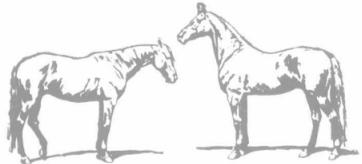
any age or best sows. Large selection. Show stuff a specialty. A few Chester Whites. Prices reasonable. Geo. G. Gould Edgar's Mills, Ont.

SAVE-THE-HORSE

(Trade Mark Registered.)
SPAVIN REMEDY



THE HORSE CANNOT CURE ITSELF. MONEY MUST BE SPENT. THE PROBLEM IS, TO-SPEND WISELY.
MR. L. DECKER, New Paltz, N. Y., writes: "\$5 enclosed for bottle of Save-the-Horse. I wouldn't take \$5 for your book alone."
John Diprose, Three Popular Stores, Dundas—Richmond, London.
London, Ont., May 10, 1912
Troy Chemical Co., Toronto, Ont.
I do not want any guarantee; I am satisfied. The horse is now going as sound as ever. It is great medicine.
John S. Cummings, 56-58 Dundas St. Red Deer, Alta., Apr. 8th, 1912.
The Troy Chemical Co., 148 Van Horn St., Toronto, Ont.
I have used your Save-the-Horse for years and it has always given perfect satisfaction. Please let me know if there is any way to cure.....?
Yours faithfully, E. S. Rutter, Box 510.



A retail druggist in a live horse town within 30 minutes' ride from New York City, writes: "I am selling three times more Save-the-Horse than any other one Veterinary remedy; when they want the GOODS THAT CURES THEY COME BACK FOR SAVE-THE-HORSE."

Write, describing your case, and we will send our book—sample contract, letters from business men the world over, on every kind of case and advice—all free (to horse owners and managers only.)
Put your horse to work and cure him now.

WHETHER ON SPAVIN, PUFF OR TENDON, OR ANY KIND OF LAMENESS results are the same, and every bottle sold with an iron-clad contract to cure or refund money. This contract has \$50,000 paid-up capital back of it to secure and make its promise good. Send for copy.

\$5 PER BOTTLE, with binding contract to cure or refund money.

16 years success and greater to-day than ever.

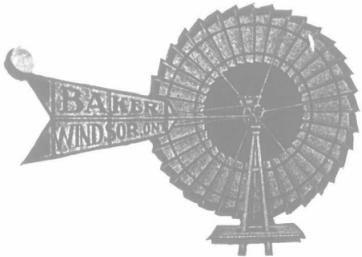
ASK THE DEALER.

Troy Chemical Co., Toronto, Ont., and Brighampton, N. Y.

Druggists everywhere sell Save-the-Horse with a legal contract to cure or refund money

"Baker" Wind Engines

Are built for hard, steady work, and keep at it year in and year out.



It is the reputation which "BAKER" Wind Engines have fairly won and steadily held ever since their first appearance on the market, 30 years ago, that should be considered. They are famous for their durability, simplicity of construction and easy running. "BAKER" Wind Engines are so designed that the gears cannot wear out of mesh. The wheel is built on a hub revolved on a long stationary steel spindle, requiring no babbiting. It has a large number of small sails which develop the full power of the wind and enable them to pump in the lightest breezes. Has ball-bearing turn-table and self-regulating device, and all the working parts are covered with a cast shield, protecting same from ice and sleet. The above is only a few of the many features that have placed "BAKER" Mills in the lead. Let the H.-A. Co. agent give you complete information, or write direct for booklet.

We make a full line of Steel Towers, Galvanized Steel Tanks, Pumps, Pneumatic Water Systems, Spray Pumps and Gas and Gasoline Engines.

THE HELLER-ALLER COMPANY
Windsor, Ontario

WANTED-CREAM

Highest Toronto prices paid for cream delivered at any express office. We pay all charges, furnish cans free, pay accounts fortnightly, engage man to collect at some points. Ice not essential. Write for particulars.

THE TORONTO CREAMERY CO.'Y, LTD.
Toronto, Ontario

THE SPICE OF LIFE.

"Free men freely work—
Whoever fears God, fears to sit at ease."
—Aurora Leigh.

IN THE AIR.

Gladys Roxton—"And the duke is so brave, papa! Why, he declares he intends to become an aviator!"

Papa—"H'm! He does, eh? Wants to visit his castle, I suppose."—Puck.

INHERITED.

"Wot you doin', chile?"
"Nothin', mammy."

"My, but you is gittin' like yooh father."—Baltimore World.

"Suppose coal is six dollars a ton, and you gave your dealer thirty dollars, how many tons would he send you?"
"Three."

"Oh, that's wrong."
"I know it's wrong, but that's what he done."

THEY ALL DO.

Old Lady—My husband is very liable to attacks of seasickness. Perhaps you could tell him what is the best thing to do.

Captain—There ain't no need to tell 'im, mum—'e'll do it.

"Nothing is small!
No lily-muffled bum of summer-bee
But finds some coupling with the spinning stars;
No pebble at your feet but proves a sphere;
... Earth's crammed with Heaven,
And every common bush afire with God;
But only he who sees takes off his shoes."
—Aurora Leigh.

In a Glasgow school, recently, a class of boys had been studying physiology with remarkable results. They were ordered to write an essay on the "spine." Many interesting papers were handed in on the subject, from one of which the following is an extract: "The spine is a bunch of bones that runs up and down the back, an' haads the ribs. The skull sits on one end, and we sit on the other!"

A great French divine, preaching a sermon on the duty of wives, said: "I see in this congregation a woman who has been repeatedly guilty of breaking her matrimonial pledge of obedience to her husband, and to point her out I will cast my breviary at her head." He lifted his book, and immediately every married woman's head in the congregation ducked.

LOST OPPORTUNITY.

Sir Thomas Lipton tells a humorous story of a Scotchman who went to a race meeting for the first time in his life. The old man's friends persuaded him to risk sixpence on a horse—a forty-to-one chance.

With much trepidation, the Scotchman handed out the sixpence, and, strange to relate, the horse won. When the bookmaker handed out a sovereign and sixpence to Sandy, the latter could not believe his own eyes.

"Do you mean to tell me I get all this for my sixpence?" he asked.

"You do," replied the bookmaker.

"Ma conscience!" exclaimed Sandy.

"Tell me, mon, how long has this thing been going on?"

Though Sandy had "greenhorn's luck," and "picked the winner" on his first venture, he might not do so again in 99 times out of 100, as those who "follow the ponies" could tell him. The man who wants to place his "saxpences" on a "sure thing," should investigate the Canadian Government's Annuity System, information in regard to which may be obtained at any post office, or on application to the Superintendent of Annuities, Ottawa. Your letter is carried free of postage.

HACKNEY AUTO-PLOW

"THE ONE MAN MACHINE"

☞ The Hackney Auto-Plow—the One Man Machine—clearly the greatest invention of the age, solves the "labor problem" satisfactorily for the farmer.

☞ It is the *only* "One Man Machine" on the market that can be used for plowing, haying, harvesting, as a stationary engine for power purposes, and as a tractor for hauling loads, etc.

☞ It is perfectly built and a pleasure to run. It does the work of 10 horses and 2 men, and plows from 10 to 12 acres per day.

☞ It is the *only* machine that worked every day at the field trials at the Minnesota State Fair.

Photos and Catalog on request.



HACKNEY MFG. CO.,
618 Prior Ave.,
ST. PAUL,
MINN.

DOMINION EXHIBITION

Ottawa, Sept. 5th to 16th, 1912

JOINTLY WITH CENTRAL CANADA FAIR

Federal grant of \$50,000 used to improve Agricultural features

All cash prizes increased 50 per cent.

Exhibition Association pays freight on exhibits coming over 100 miles. Reduced passenger rates and excursions on railways from five Provinces and two States.

New \$90,000 Machinery Hall erected for farm implements.

Entries from field crop competitions from every Province. Educational features along agricultural lines added. Novel attractions and amusements.

SEND FOR REVISED PRIZE LIST

E. McMAHON, Mgr. and Sec'y, 26 Sparks St., OTTAWA
Entries close August 20th

POLES OF STERLING QUALITY

Michigan White Cedar Telephone Poles

W. C. STERLING & SON COMPANY

Oldest Cedar Pole Firm in Business

Produces for 32 Years

1880

MONROE, MICHIGAN

1912

B. A. MITCHELL'S DRUG BUSINESS
LONDON, ONTARIO

CONTINUED SAME AS USUAL BY
Miss Mitchell
THE OLD RECEIPTS PUT UP IN THE USUAL WAY

When Writing Advertisers, Please Mention "The Farmer's Advocate"

COCKSHUTT

Plow Early in 1912 for a Big Yield in 1913

See What COCKSHUTT Plows May DO If Used Now

HERE we show a table from the "American Agriculturist" that gives the results of early plowing for wheat yield. It applies more or less to your farm. It shows how important it is to plow as early and as deep as possible. Despite the greater cost of early plowing, you are repaid by nearly three times the profit. Spend a few minutes looking over this table. Decide to get immediately the "Beaver Gang" or "Ontario Footlift Sulky" Plow that will enable you to duplicate the plowing conditions given in the table. With these plows early plowing is easy, because of light draft and ease of operation.

How Early Plowing Can Earn You THREE TIMES the Ordinary Profit per Acre on 80c. Wheat

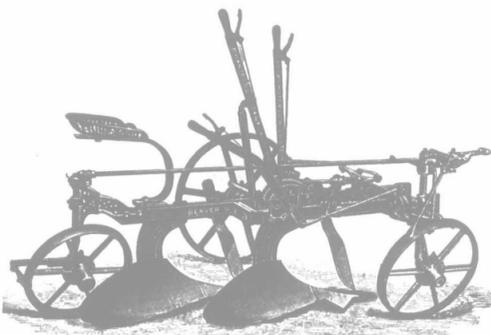
Method of Preparation of Seedbed.	Bushels per Acre.	Cost of Preparation	Value of Crop at 80c.	Net Profit over cost.
Plowed Sept. 15, 3 ins.	14.46	\$3.05	\$11.57	\$8.52
Plowed Sept. 15, 7 ins.	15.79	3.55	12.63	9.08
Double disced July 15, and plowed Sept. 15, 7 ins.	23.57	4.35	18.85	14.50
Double disced July 15, and plowed Aug. 15, 7 ins.	32.68	4.70	26.14	21.44
Plowed Aug. 15, 7 ins.	27.74	3.90	22.19	18.29
Plowed July 15, 3 ins.	33.46	4.45	26.77	22.32
Plowed July 15, 7 ins.	38.36	4.95	30.60	25.74

This table shows how greatly a yield of wheat may be increased by early plowing, as deep as possible. The profit per acre rises nearly \$9 a month, just by early plowing. An acre plowed in July is worth three acres plowed in September. Plow early, if you can, and if you cannot plow, disc your land early. Early work pays.

The Moral is: See Our Agent Now!

These "Cockshutt" Plows have great capacity in variation of depth of furrow, light draft, ease of handling, and great strength. They are best to buy because of quality of output and dependability for long, hard service.

The "Beaver" Gang

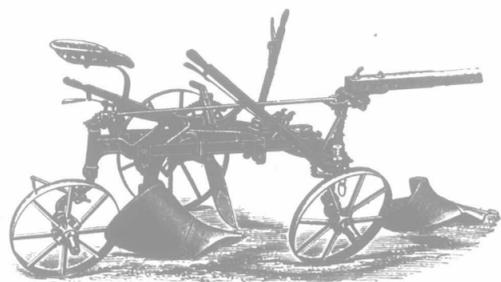


THIS is a great plow for swift, early plowing. It cuts four to seven inches deep and up to 22 inches wide. By the straightener device and the pole-controlled furrow wheels, every inch of land is covered and a clean straight furrow is turned without the least delay. The big wheels and accurately-shaped moldboards give light draft and speedy work.

The wheels have dust-proof oil-retaining bearings. A cushion spring on the land wheel axle arm saves strains on plow, team and operator when working rough land. The lifting spring device allows a boy to run the "Beaver No. 1" and the quick-turn feature saves time at end of furrows. The high frame obviates stops to clear away trash.

For straightaway plowing, hour after hour, without troubles and stops, the "Beaver Gang" is one of the most economical implements on the market. See the "Cockshutt" agent about a "Beaver Gang" to-day—you will be more than satisfied with the work it will do.

Ontario Footlift Sulky



WHERE a boy is available to drive, he can safely and easily handle this excellent new "Cockshutt" plow. The footlift device lifts the plow easily whenever necessary. The "Ontario Footlift" may also be adjusted to automatically rise and reset itself after passing obstructions. The wheels have dust-proof oil-retaining bearings. Fitted with our No. 21 bottom, it handles a furrow up to 12 inches wide and 8 inches deep.

A feature is the automatic controlling rod from the tongue to the rear and front furrow wheels. This feature helps greatly in making a short turn at ends of land, etc. A youth may operate the "Ontario Footlift" Plow throughout the entire day without touching a lever or taking his hands off the reins.

See the "Cockshutt" agent, or write us regarding this Sulky. It has hundreds of satisfied and enthusiastic users. We can make immediate deliveries for July plowing.

If in need of any Implement, write us a letter about it, and we will be glad to help you in any way we can. We have all kinds of implements to help you in your work—to help you make more profit.

SOLD IN WESTERN ONTARIO BY

COCKSHUTT PLOW COMPANY LIMITED BRANTFORD

IN EASTERN ONTARIO, QUEBEC AND MARITIME PROVINCES BY

FROST & WOOD CO., Limited, Smiths Falls, Montreal, St. John, N. B.