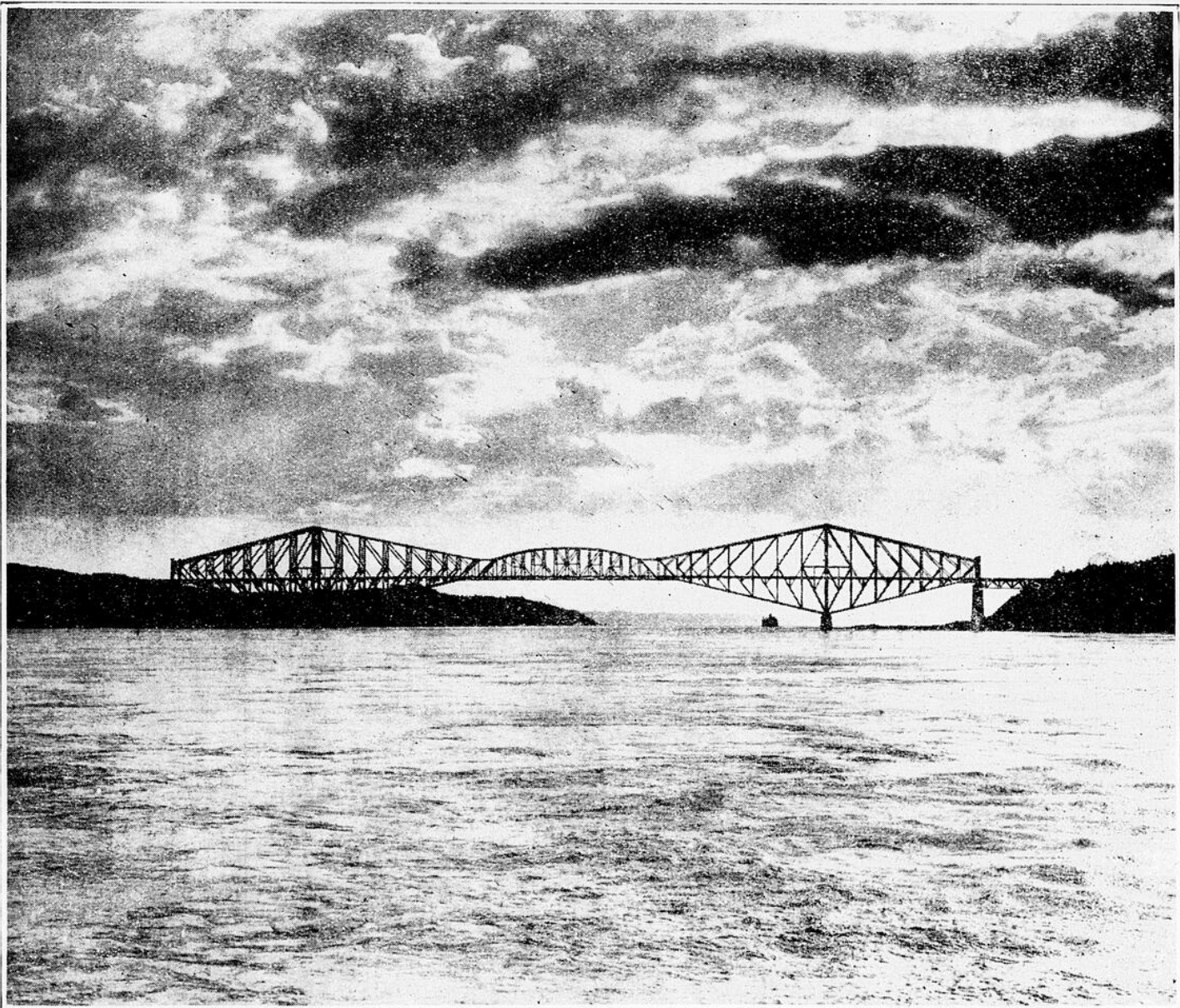


# *The* JOURNAL of AGRICULTURE AND HORTICULTURE

Volume 30

July 1st 1926

Number 1



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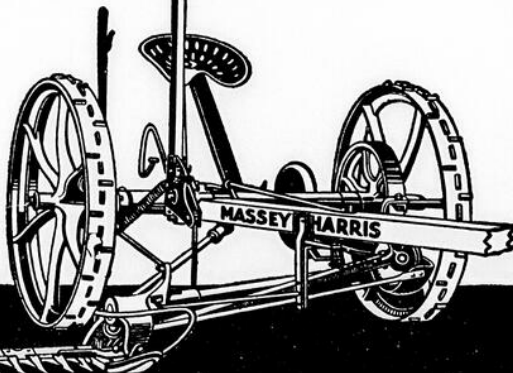
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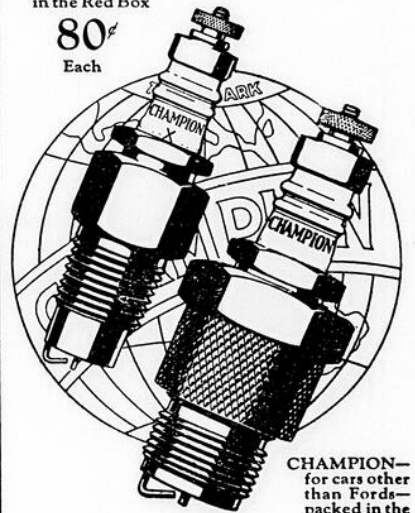
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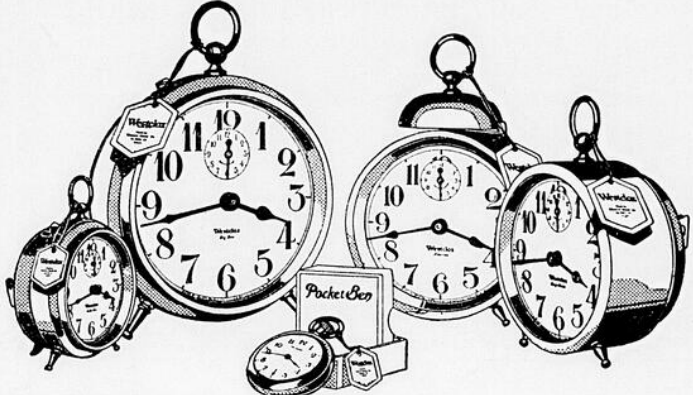
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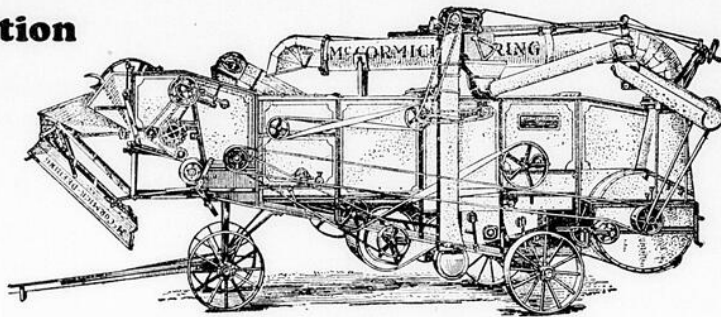


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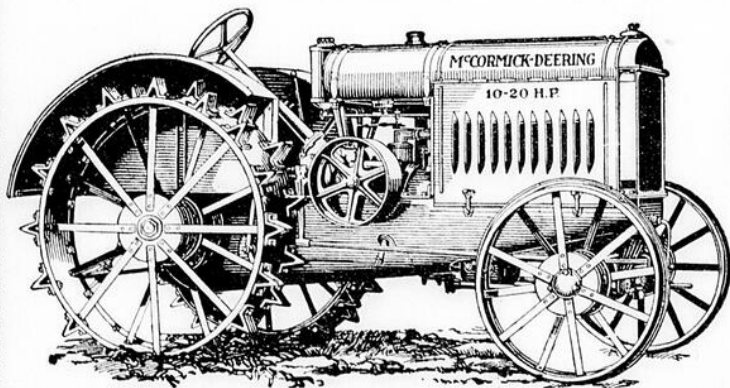
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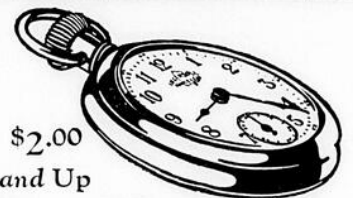


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Number 1

## Canadian Seed Growers Report Progress Macdonald College and Oka Agricultural College Entertain Large Number of Delegates at Annual Convention.

A quarter of a century ago the foundations of the present Canadian Seed Growers Association were being laid by two public spirited men in seed selecting competitions carried on amongst the boys and girls of Canada. These public spirited men were Dr. James W. Robertson, whose idea it was thus to encourage the selection and use of better seed on the farms of Canada, and Sir William Macdonald, whose munificence made possible the carrying out of the idea. And it was thus particularly fitting that one of the convention places picked on this year should be Macdonald College, the best known monument to these men in their work of the improvement of the position of the Canadian farmer.

Here at Macdonald the members of the standing committees and the directors met for two days last month, and then proceeded to Oka Agricultural College, where they were joined by the remaining delegates to the convention for their annual meeting,—an annual meeting that was the best ever staged from point of numbers, and that was attended by a particularly representative group of farmers actually engaged in the production of superior seed.

The reports presented by the board of directors covering the present year's work show everywhere evidence that the Canadian farmer is becoming more appreciative of the importance of good seed as a basic factor in crop improvement, and statistics were submitted to show the steady advance in the production and distribution of seed by the members of registered and extra No. 1 grades. Comparisons of the production and value of the stocks of seed of but five crops, wheat, oats, barley, sweet clover, alfalfa, in 1923 and in the present year shows an increase from \$121,429 to \$292,911, or 141%, and these figures take no account of seed from registered crops which have been produced and distributed by members for seeding purposes as commercial seed grades or ungraded. The chief factor in this growth, it was pointed out, has been the organization of local business units of the membership, which are now located at the following points: Brooks and Edmonton, Alta., Moose Jaw, Sask., Kemptville, Ont., Ste. Rosalie Jct., Que., and Fredericton, N. B.

Yet the fringe only of the possibilities of the association in improving the crops of Canada in



Professor Robert Summerby of Macdonald College, P. Q., Acting President of the Canadian Seed Growers' Association, at the Annual Convention at Oka Agricultural Institute, La Trappe, P. Q., June 21st and 22nd, 1926.

general has been touched. For while, for instance, there are planted annually in Canada about 33,000,000 bushels of wheat, figures show that this spring's planting of registered and extra No. 1 could not have exceeded 90,000 bushels,—the amount inspected and sealed by the association. And, as Prof. R. Summerby of Macdonald College, Vice-President and Acting Chairman of the convention, pointed out, at least 3,500,000 bushels of wheat sown this spring should have been of these classes.

Two conclusions were reached by the directors after a study had been made of the figures in connection with acreage in 1925 of registrable seeds and amount finally presented for certification, together with amounts of these improved seeds distributed this spring in comparison with possibilities. One was that extensive quantities of seed from registered crops are not now reaching the market as such; the other is that, despite the growing appreciation of the need for this better seed on the part of the average farmer, much still remains to be done to promote a consciousness of the importance of sowing *seed*, and seed of quality, instead of just *grain*, if good crops are to be looked for. To improve the situation it was decided to inaugurate a campaign, advertising and otherwise, to impress upon seed users the importance of their supplies.

In this connection the usefulness of the Provincial Seed Boards was demonstrated by the concrete example of the work done in Quebec, where there was produced within its boundaries last year about 28,000 bushels of Banner 44 M. C. oats eligible for registration, by the efforts of the Board, whereas only a short time ago it was difficult to obtain in Quebec any registered oats of home production.

A considerable export demand has arisen for Canadian registered seed, one shipment in particular having caused considerable comment in the newspapers of the country during the year. This consisted of a carload of Marquis wheat and one of Banner oats exported to the Argentine. And, while the main efforts of the association are devoted to developing in Canada an appreciation of the value of this seed in improving the crops of this country, it is thought that perhaps a realization of the eagerness of these foreign growers for stocks

of our superior seeds may awaken some of our own growers to overlooked possibilities.

Barley is receiving special attention at the present time, due to the active interest in this grain crop shown by the Canada Malting Company. Working through field crop competitions, seed fairs, etc., and actively assisting in a financial way in making the growing of this crop attractive by guaranteeing a minimum price for surplus stocks of registered seed and by transporting supplies of seed from districts with surpluses to those short of seed, this company has made an outlay of some \$10,000 during the past year for the popularization of barley growing in this country.

Nor are the activities of the association now limited to the production of seed for field crops only as was the case for many years. A definite start has been made in the production of field root and garden vegetable seed. Elite Stock seed of many varieties is already being produced in considerable quantities, and there will be available for registration shortly stocks for the market. Some eighty varieties of vegetables available for registration have been recommended by the Horticultural Committee, which list of varieties will be published in all agricultural papers, during the coming year and printed in poster form as well.

### THE NEW OFFICERS

The convention elected Major H. G. L. Strange, Fenn, Alberta, to the presidency for the coming year. Major Strange was international champion in wheat at the International Hay and Grain Show at Chicago, in 1923, and has for two years been one of the vice-presidents of the association. The other officers elected were; Hon. Pres. Dr. James Robertson, Ottawa, Ont.; Vice-Presidents: T. J. Harrison, Manitoba Agr. College, Winnipeg; L. Ph. Roy, Quebec, and R. Summerby, Macdonald College, Que.; Sec-Treas. Peter Stewart, Ottawa, Ont.; directors: W. H. McGregor, Central lot 16, P. E. I.; John Trueman, Truro, N. S.; I. C. Hicks, Fredericton; L. P. Roy, Quebec; John Buchanan, Guelph; T. J. Harrison, Winnipeg; M. P. Tullis, Regina; W. J. Stephen, Edmonton; Cecil Tice, Victoria; George Robinson, Eln Lake, B. C.; Ralph Moore, Norwich, Ont.; R. D. Kirkham, Saltcoats, Sask.; W. J. F. Warren, Belkeek, Sask.; R. B. Dickinson, Solsgirth, Man.; E. K. Hampson, Kemptville, Ont.; R. Summerby, Macdonald College; C. F. Bailey, Fredericton; W. S. Blair, Kentville, N. S., W. Boulter, Charlottetown, P. E. I.

### On My Way

WELL this is great! A real one hundred percent summer day, even though the family almanac says summer does not begin for almost a week yet. It makes the heart glad, and the rareness of such days this season sharpens our sense of appreciation. Indeed many things must be glad, for I am always thinking to myself, as I move amongst the abundant life of flowers and grass and trees, that they too have hearts. Hearts that are strong and tender, that shrink from cold and chill, that revive with warmth and comfort. They are classed as a lower form of life than mine, but that matters not,—they tell their own story.

So as I sit out here in the orchard I can see all of nature coming forth to meet the morning sun as he rides high in space from his rising in the East, across the world to his going down in the West. The grass with long slender blades of freshest green is stirred into waving motion by the gentle southwest breeze; dandelions in countless numbers are bobbing their orange-yellow heads just above the grass; while deep down in little hidden places I can see here and there shy little yellow violets, almost lost in the crowded space. Buttercups too are pushing up long dark green



Peter Stewart, Secretary-Treasurer of the Canadian Seed Growers' Association.

# The JOURNAL of AGRICULTURE AND HORTICULTURE

ISSUED MONTHLY BY

THE DEPARTMENT OF AGRICULTURE OF THE PROVINCE OF QUEBEC

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stems, with tightly folded buds and just a touch of yellow peeping out. Indeed Danny, who is thrilled many times a day with new found flowers, has brought to mother a bouquet of wide open buttercups, which he thinks are lovely. Mother thinks so, too, and has put them in a vase on the table in the living room.

Overhead there is beauty, too, wonderful beauty! almost too much for me to describe. It is apple blossom Sunday, and masses of white have changed these old crooked trees into things of untold loveliness, while their fragrance goes out on every passing breeze. If there are any who have not seen this beauty, and taken in upon their breath the scent of apple blossoms, no description can be sufficient; and to those who have, none is necessary. There is an unending drove of busy bees working fervently, and once in a while a new sound, a hum, as a humming bird quickly passing, thrusts his long beak into the heart of the flowers. This is the beauty of this summer day just around me, but there is more, still more.

For I can view from where I sit a great country side; beginning with the meadows and pastures near by, and ending miles away where yonder the mountain tops lose themselves in the haze of summer sky. Truly it is great! Just to sit here so quiet and look for a long time out yonder on such a view. Those mountains—big protecting things they are, so steadfast, covered with that smoky blue,—who indeed would not lift up to them his eyes and be helped? At their base a forest, one block of mingled green, some light some dark, then a stretch of farm land with a few houses and barns, a steep rocky slope sparsely covered with trees (which I know goes down to the edge of a beautiful lake which I cannot see), then the woods just down there, each tree standing out with bulging top and fringed along the meadow and pasture with sentinel evergreens.

The church bells are ringing now, the call to worship. Their clang but adds to the peace of the Sabbath. I can see through a little gap in the green the shining spire pointing upwards, and from many homes the faithful ones are on their way to kneel within its walls and give thanks. If only one could live on the mountain top how pleasant it would be! but one must come down.

In the pasture the horses loiter lazily, enjoying their freedom after hard work on the land. The contented cows graze slowly along, rest awhile and graze again. The fresh earth of tilled fields stands out alongside the meadow lands, showing only a touch of green, in many places none at all. Many farmers have not completed their spring work, corn being the chief crop not yet sown. Two or three whom I have talked with have abandoned their corn crop for this season, believing that the

summer is going to be cold. Perhaps they have been reading the weather prophecies for the year, or about those big spots on the sun; but today will make them wonder if they are doing the best thing. The season has been most backward, but if only there are tomorrows such as today these dire prophecies will soon fail, the spots on the sun will cast no shadows, faith will be revived, and the past spell of cold, bleak days will be forgiven and forgotten.

I took a walk over the farm this morning, after chores were done and breakfast over. Down along the pasture fences into the woods, along the winter road into the swamp. At the edge of the woods, close by the spruce and balsams on the higher ground, I found those delicate, graceful flowers, Lady's Slippers. I sat down for a few moments beside a pair of them and admired them, they were so gentle and attractive. In the swamp near the roadway were some fence pickets and rails that had escaped me in the deep snow. I could hardly believe it possible that I ever passed through such

a rough trail, with horses and sleds, but yet it was a fine road in winter. Circling around. I came to where I had cut the woodpile, and there, too, was a pile or two of limbs I had passed by, and a little way off I spied a Jack in The Pulpit.

Homeward, then, across the meadows, noting how the newly seeded was abundant with young Clover, except on a few high knolls. The dew washed my rubber boots almost new again, as I brushed through the long grass. Across the garden, where the raspberry bushes and strawberry plants thrived, and the peas stood strongly in their long row, then to my seat in the orchard for a rest, while Danny and Paul came and went on flower hunting trips. Sounds from the house told that Isabel was busy, for mother's work is never done. And as I seated myself amid these surroundings, my heart warmed with gratitude, and there came to me the fitting words, "Mine is a goodly heritage".

H. H.

## The 1926 Fairs

A list of Agricultural Exhibitions to be held this year under the Auspices of Agricultural Societies.

SOCIETY	PLACE	DATE	SECRETARY	ADDRESS
ARBITI			J.-U. Dumont	Amos.
ARGENTEUIL	Lachute	June 23-24-25-26	J.-W. Gall	Lachute, Box 12.
ARTHABASKA	Victoriaville	Sept. 22-23	C. R. Garneau	Arthabaska.
BAGOT	St. Liboire	June 29-30	J. A. Lemonde	St. Liboire.
BEAUCE, Div. A.	Beauceville	Sept. 16	Josaphat Roy	Beauceville.
BEAUCE, Div. B.	St. Ephem de Tring	Sept. 22	Achille Faucher	St. Ephem de Tring.
BEAUHARNOIS	St. Louis de Gonzague	Sept. 7	W. Martin	St. Louis de Gonzague.
BELLECHASSE, Div. A.	St. Michel	Sept. 21-22	Caius Lacroix	Boyer.
BERTHIER	Berthierville	Sept. 14-15-16-17	Alf. Mousseau	Berthier, R. R. 2.
BONAVENTURE, Div. A.	Port-Daniel	Sept. 21		
	Shigawake	Sept. 22		
	New-Carlisle	Sept. 23	Geo. M. Kempffer	New Carlisle.
BONAVENTURE, Div. B.	New-Richmond	Sept. 9	W. H. Willett	New Richmond, West.
BROME	Brome	Sept. 6-7-8	Ed. Caldwell	Brome.
CHAMPLAIN	St. Bruno	Sept. 15	Alb. Bernard	St. Basile le Grand.
CHAMPLAIN	St. Stanislas	Sept. 14-15	J. T. Jacob	St. Stanislas.
CHATEAUGUAY	St. Martine	Sept. 14	J. P. Laberge	St. Martine.
CHICOUTIMI	Chicoutimi	August 25-26-27-28	J.-A. Gobeil	Riv. du Moulin.
COMPTON, No. 1	Cookshire	Sept. 17-18-19	T. O. Farnsworth	Cookshire.
COMPTON, No. 2	Scottown	Sept. 9-10-11	Geo. F. Cowan	Scottown.
TWO MOUNTAINS	St. Scholastique		J. W. Sauvé	St. Placide.
DORCHESTER			Evang. Felteau	St. Anselme.
DRUMMOND	L'Avenir		J. C. St. Amant	L'Avenir.
FRONTENAC	Lambton			
	St. Evariste			
	St. Ludger			
	St. Sébastien			
GASPE, Div. A. No. 1	Cape Cove	Oct. 12	Edmond Bureau	Lambton.
GASPE, Div. A. No. 2	Barachois	Oct. 1st	J. J. H. Balleine	Cape Cove.
GASPE, Div. C.			Roland Tapp	Barachois.
HOCHELAGA			J.-O. Roy	Cap Chat.
HULL, Div. A.	Aylmer		J.-A. O'Gleman	90, St. James, Montreal.
HULL, Div. B.	Maniwaki	Sept. 14-15-16	R. K. Edey	Aylmer Box 114.
HUNTINGDON, Div. A.	Huntingdon		Ed. Joanis	Maniwaki.
HUNTINGDON, Div. B.	Huntingdon		John Snail	Huntingdon.
IBERVILLE	Huntingdon		W. P. Fisher	Huntingdon.
JACQUES-CARTIER	St. Alexandre	Sept. 6-7	J. B. Besette	St. Alexandre.
ILES DE LA MADELEINE			Jos. Boileau	Lachine.
Div. A.			Isidore Boudreau	Dune-du-Sud.
JOLIETTE, Div. A.	Joliette		Alexandre Rivest	Joliette.
JOLIETTE, Div. B.	St. Jean Matha	Sept. 22	J.-O. Léveillé	St. Jean Matha.
KAMOURASKA	St. Pascal	Sept. 21-22	P.-W. Levesque	St. Pascal.
LABELLE, Div. B.	Mont-Laurier	Sept. 7-8	A. U. Martineau	Mont Laurier.
LAC ST-JEAN, Div. A.	Hébertville Station	Sept. 2-5	J.-E. Simard	Hébertville Station.
LAC ST-JEAN, Div. B.	Roberval	Sept. 1st	J.-Ed. Boily	Roberval.
LAPRAIRIE	Laprairie	Sept. 7	Raoul Lussier	St. Philippe.
L'ASSOMPTION	L'Assomption	August 23	P.-J. Marsan	L'Assomption.
LAVAL	St. Rose	August 28	P.-A. Longpré	St. Rose.
L'ISLET	St. Perpétue			
	St. Adalbert			
	St. Marcel			
	St. Cyrille			
	St. Pamphile			
LOTBINIERE, No. 2	Lotbinière	Sept. 9	J.-N. Bernier	St. Jean Port Joli.
MASKINONGE	Louiseville	Sept. 13-14	Jos. Bédard	St. Croix.
MATANÉ	Baie des Sables	Sept. 13-14	J. L. Desaulniers	Louiseville.
MATAPEDIA			L.-A. Chénard	Baie des Sables.
MEGANTIC, Div. A.	Inverness		Jos. Brébel	Val Brillant.
MEGANTIC, Div. B.	Plessisville	Sept. 14	W. G. Learmonth	Inverness.
MISSISQUOI	Bedford	August 31 and Sept 1	Théod. Fortier	Plessisville.
MONTCALM	St. Julienne	Sept. 21	C. O. Jones	Bedford.
MONTMORENCY, Div. A.	Riv. aux Chiens	Sept. 29	J. F. Daniel	St. Esprit.
MONTMORENCY, Div. B.	St. Famille	Sept. 28	J.-Ad. Cloutier	Riv. aux Chiens.
NAPIERVILLE	St. Edouard	Sept. 9	Alb. Faucher	St. Famille.
NICOLET, Div. A.	Gentilly	Sept. 15	Arthur Collette	St. Rémi.
NICOLET, Div. B.			Nap. Levasseur	St. Angèle, Laval.
MONTMAGNY	Montmagny		Henri Leblanc	St. Monique.
PONTIAC, Div. A.	Shawville		Alex. Proulx	Montmagny.
PONTIAC, Div. B.	Chapeau	Sept. 21-22	R. W. Hodgins	Shawville.
PONTIAC, Div. C.	Quyon		P. McMahon	Chapeau.
PORTNEUF, Div. A.	Pont Rouge	Sept. 23	Manary & Smith	Quyon.
PORTNEUF, Div. B.	St. Casimir		Ls. Geo. Bussièrès	Pont Rouge.
PORTNEUF, Div. C.	Montauban		J.-A. Foley	St. Thuribe.
QUEBEC	Québec		Geo. Bertrand	Montauban.
RICHÉLIEU	St. Victoire	Sept. 14-15	Hil. Payeur	76 du Pont, Québec.
RICHMOND	Richmond	Sept. 15-16	Jos. Desjardins	St. Victoire.
RIMOUSKI	Rimouski	Sept. 14-15-16	W. R. Stevens	Richmond.
ROUVILLE	Rougemont	Sept. 14-15-16	Alf. Dubé	Beauséjour.
SHEFFORD	Waterloo	August 31	Anthime Arès	Rougemont.
SOULANGES	Pont Château	Sept. 16	N. O. Rockwell	Waterloo.
STANSTÉAD	Ayer's Cliff	August 24-25-26	Geo. R. Vernier	Coteau Landing.
ST. HYACINTHE	St. Hyacinthe	August 3-4	Homer G. Curtis	Stanstead.
ST. JOHNS	St. Johns	August 30-31	René Morin	St. Hyacinthe.
ST. MAURICE	St. Barnabé	Sept. 21	J.-Aimé Lussier	St. Johns.
TEMISCAMINGUE	Ville Marie	Sept. 22	R. Bellemare	St. Barnabé, North.
TEMISCOUATA, Div. A.	Isle Verte	August 24-25-26	Chs. Lefebvre	Ville Marie.
TEMISCOUATA, Div. B.	N. D. du Lac		Chs. Eug. Michaud	Isle Verte.
TERREBONNE	St. Jerome	Sept. 1-2	L.-J. Dubé	N. D. du Lac.
THREE RIVERS	Three Rivers	Sept. 28	Dr. Alf. Chénier	St. Jerome.
VAUDREUIL	St. Lazare	Sept. 23	Médéric Pothier	Three Rivers.
VERCHERES	St. Theodosie		Jos. Denis	Vaudreuil.
			W. Dupré	189 St. Paul East.
WOLFE, No. 1	Marbleton			Montréal.
WOLFE, No. 2	Ham Nord	Sept. 21	E. J. Westman	Marbleton.
YAMASKA	St. Frs. du Lac	Sept. 1-2	J.-A. Comtois	Ham Nord.
			Alc. Lacharité	St. Frs. du Lac.

### LARGE EXHIBITIONS:—

VALLEYFIELD—August 16 to 21  
THREE RIVERS—August 23 to 28

SHERBROOKE—August 28 to September 4  
QUEBEC—September 5 to 11.

OSCAR LESSARD,  
Secretary of the Council of Agriculture.

# Protecting Farm Property Against Lightning

By L. G. Heimpel, Prof. of Agricultural Engineering, Macdonald College, P. Q.

THIS is the open season for thunder storms, and severe storms of this nature seldom pass over a district without doing some serious damage. It may be that our particular community has escaped having one or more of its barns, houses, schools or churches burned or torn to pieces by this fiery phenomenon of the skies, for many years, then we are suddenly visited by one of these terrible storms and the labors of many hands may be laid waste in a short time. Not infrequently life is taken,—people are struck down in the home or in the field,—and it is a common thing to have live stock killed, sometimes groups of them, in one storm.

Since Benjamin Franklin flew his famous kite in a field near the city of Philadelphia in 1753, we have been interested in a casual way in lightning rods. Partly through ignorance of the nature of lightning and partly through the callous indifference of our governments of the past, the lightning rod has been allowed to become one of the most distrusted things ever invented. After it found its way into the hands of a few unscrupulous firms and was sold to the ignorant but trustful public by more unscrupulous "lightning rod agents", the invention received about as shady a name as was ever contracted by any article of commerce.

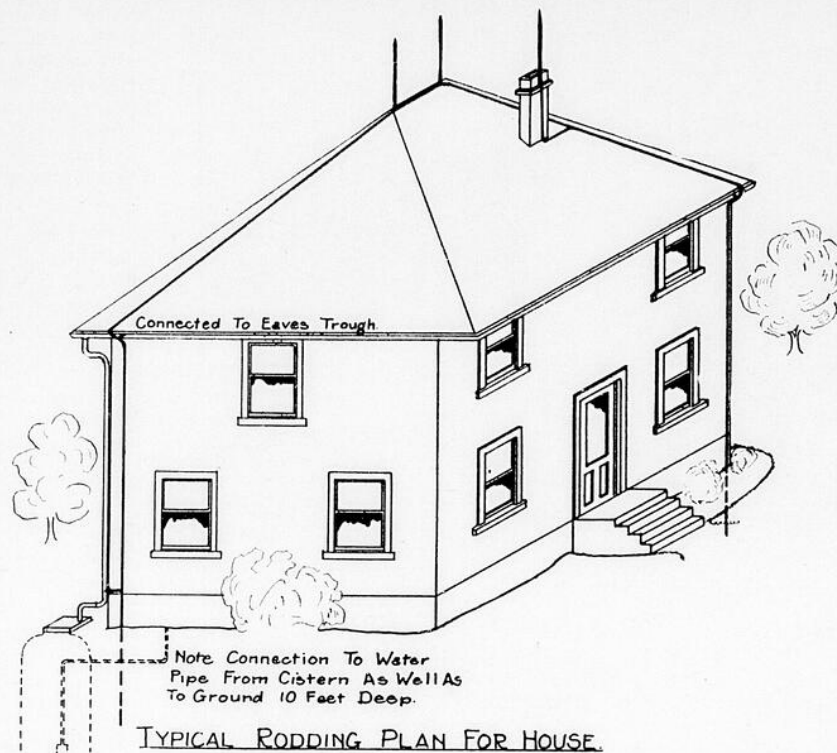
The rods of those early days, thirty to forty years ago, were not all that they should have been; but we believe that they were honest attempts, in some cases at least, on the part of their makers to produce an article which should fulfil the purpose of a protection against lightning of the structures upon which they were mounted. The knowledge of these workers was limited and, though we know a good deal more about the subject today, our knowledge is still limited. The fact that the marketing of the invention found its way into the hands of the unscrupulous was unfortunate, but was the fault of the people entrusted with our governments at that time.

It took many years after this setback in popularity for the lightning rod again to get into our confidence, and all these years our losses from lightning have been terrific. Today the business is on a sound basis. Many States of the Union to the south of us have laws protecting the people to whom rods are sold and at the same time standardizing the product so that the material, its size, weight and the method of installation will conform to specifications known to be correct from the standpoint of efficiency. Ontario has such a law, and it is doing much to redeem the lost name of the lightning rod.

## Sentiment and Superstition Hard To Overcome.

From time immemorial man has stood in awe of the thunder storm. The allusions to this terrible agent in all ancient writings and in the scriptures show the respect in which the phenomenon was held. Almost fifteen hundred years before the time of Christ it was written that "On the third day in the morning, there were thunders and lightnings, and a thick cloud upon the mount." And again, "The Lord thundered from heaven—and sent out arrows and scattered them; lightning and discomfited them."

Even to those most enlightened there was much of the mysterious in the thunder cloud not so very many years ago—there is still much to be learned,—and it is not at all surprising that we should find people today who think they are committing a sacrilege when they install a device which is supposed to deflect what has so long been regarded as the particular weapon of a wrathful God. Science and truth have however, made much headway in the last century, and we have learned that forces once regarded as wholly destructive could be made, not merely harmless, but useful. To the truly understanding mind, however, these discoveries engender humility and respect



for the great forces of nature, and not pride, for it is true that where pride of achievement begins progress slows up and sometimes ends.

## How Lightning Rods Work.

The forces of nature are meant to be our servants; it is but for us to use them. What we can not control is, however, not likely to be of much use. Lightning is nature's way of keeping the electrical charges between the clouds and earth in proper balance. In a storm this balance is upset, and discharges between the earth and the clouds are necessary to establish equilibrium in electrical tension. When the exchange has to be made through the atmosphere, enormous pressures or voltages must be accumulated before this air gap can be bridged; air, it must be remembered, is one of our best electrical insulators and offers great resistance to the passage of electric current. Electric current always takes the path of least resistance when moving from one substance to another.

If there is a choice between a layer of air one thousand feet thick, on the one hand, and in the same vicinity a barn fifty feet high which would lessen the air layer to nine hundred and fifty feet, there is no question as to which course the charge would take in its passage to the earth. The barn is connected to the ground and carries the same polarity of charge as the earth, the negative charge; the clouds carry the positive charge. Unlike charges of electric current are always attracted to each other, and when they unite they neutralize each other. The barn, carrying a charge unlike that of the cloud, is nearer to the cloud than is the earth, hence the charge from the cloud is naturally drawn to the barn.

But, before the positive charge of the cloud can jump the air gap it must become built up in pressure or voltage sufficiently to do so, and tremendous

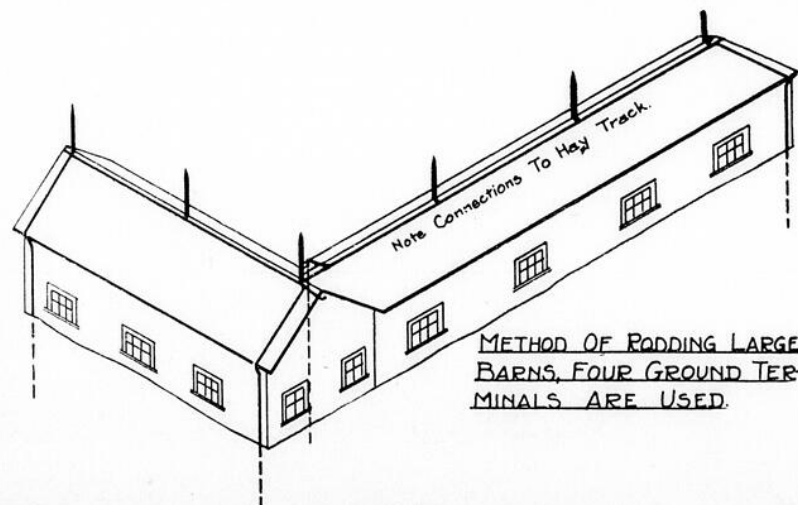
accumulations of current are necessary before the resistance of the air can be overcome. When such a charge finally leaves the cloud it literally burns up the air through which it passes, and when it strikes the barn or other prominence on the earth's surface it is likely to set fire to inflammable material it makes its path. Dry wood is a poor conductor, so is hay and the other contents of the average barn. It may jump from one part of the frame of the barn to the other; it may jump from the hay track to the eave trough or the water spout and thence to the ground; or it may jump from one thing to another until the whole barn bears marks of its passage. But always it is in search of an easy path to the ground. Metallic substances always are an attraction to it. For this reason the stove in the house, the hay track in the barn, and other machinery containing iron or other metals, are known to be dangerous in a heavy thunder storm. Sometimes the stroke, as it is usually called, sets fire to the whole building in the twinkling of an eye, and at other times it merely tears things to pieces to a greater or lesser extent, on its way to the ground. The important thing for us

to remember, however, is that in all its apparently aimless meanderings it is ever in search of an easy path to the ground, to unite with that charge of the opposite potential which is awaiting it there.

One reason for the introduction of a lightning rod on a building is already suggested above, namely to provide an easy path for the current. This is true, to a certain extent, but if this were all, it is to be feared that the rods would not avail us a great deal. There is a much greater service which the rods perform. They prevent the gathering of the tremendous charges necessary to jump the air gap in the proximity of the building on which they are installed. Were it not for this fact the puny copper wire on the building would not be able to take care of the enormous electrical charges making up the heavy thunderbolts all of us have witnessed. Sir Oliver Lodge has calculated that it would require a difference in potential of five thousand million volts to cause a spark or flash of lightning to jump a mile from cloud to earth. Similarly, the amperage, or the quantity of electricity making up the bolt or charge has been estimated at as much as 20,000 amperes. The power of our most mighty Niagaras and all their power plants fades into insignificance when compared with this mighty phenomenon. What chance, then, has a small copper rod of carrying such mighty currents safely to ground?

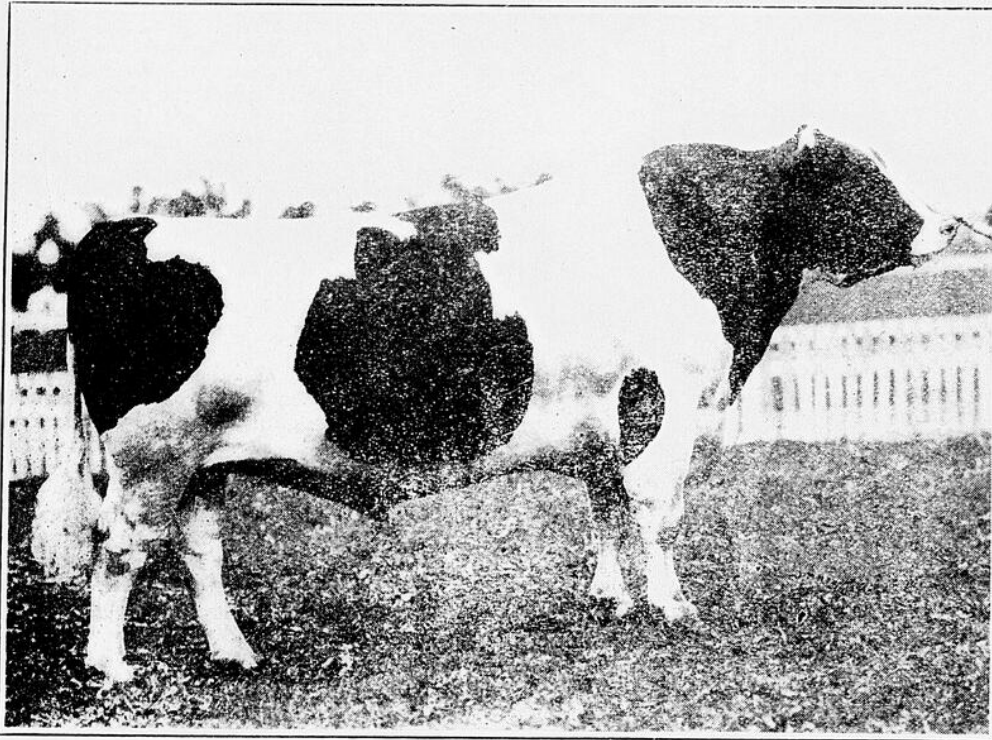
The second benefit then is due to the sharp points we see pointing to the sky on building equipped with lightning rods. It is a well known fact that in good conductors electrical charges always tend to accumulate in the elongated parts of the conductors, and this accumulation of pressure increase until it is sufficient to overcome the resistance of the air and allows the current to escape into the atmosphere. This can readily be demonstrated by the Wimshurst machine as it is arranged to illustrate the action of lightning rods. If the ends of the wires mounted on the little buildings used in this demonstration are drawn out thin and filed sharp it is impossible to create a flash or spark from the machine, so great is this leakage. If a match is lighted and the flame held in the path of the current as it leaks off the points the flame will be blown out.

On a building the points allow the negative electricity of the earth to leak off into the air, thus preventing the accumulation of unusually heavy charges or potentials in that immediate vicinity. Without the points it is possible to produce a flash and ignite a building with the demonstration machine even though the building has a wire run over the top of it. The same is true of buildings rodded but with-



(Continued on page 15)

# The Ormstown Show



Johanna Rag Apple Pabst, the Holstein bull imported from Wisconsin by T. B. Macaulay, Montreal, and for which he paid \$15,000. This bull was all-American champion for three years in succession and was senior and grand champion of the breed at Ormstown.

In some respects the Ormstown show of this year was even better than last year's exhibition, and this in spite of the bad weather and the lateness of the spring. This latter factor was largely responsible for the somewhat smaller entry list of heavy horses. Their owners stated that it had been necessary to work the stock so late that it was not in show shape and consequently left at home. What was there, however, was of excellent quality. In the light horses there was a slight increase in numbers, so that the total of the horse entries was practically the same as for last year. Among the sheep and swine departments there was quite a marked falling off in the entries. This was partly due, in the case of the swine, to the absence of two breeders who formerly have been rather large exhibitors. The smaller numbers was largely accounted for in the market classes in both of these departments.

The real feature of the show was to be found in the dairy cattle group, particularly the Holsteins and the Ayrshires. Without question this year's line-up was the strongest in a number of years: The Holsteins were a little short in numbers over last year, but their losses there were made up in quality of those present. In every class there were individuals of exceptional merit, and the championship groups were followed with great interest by all those interested in the respective breeds.

The Jersey entries were fewer than last year, and were perhaps not of as high a standard as usual. There were three breeders showing Shorthorn cattle, which was a decided increase over last year when only one Shorthorn animal was present. There were also a few Herefords and Angus represented.

The comparative list of entries for the last three years will give an idea of the general trend of the showings by breeds.

Stock	Number Animals Entered		
	1924	1925	1926
Horses (total) . . . . .	478	385	381
Holsteins . . . . .	173	205	178
Ayrshires . . . . .	174	224	249
Jerseys . . . . .	30	54	46
Milking Shorthorns . . . . .	27	1	49
Hereford . . . . .	0	0	12
Angus . . . . .	0	14	10
French Canadian . . . . .	86	80	83
Sheep (total) . . . . .	137	243	172
Swine (total) . . . . .	184	180	141
Total . . . . .	1291	1403	1321

LIST OF JUDGES 1926

Holsteins	James Rettie, Burgessville, Ont.
Ayrshires	J.A. Ste. Marie Ste. Anne de la Pocatiere
French Canadian Prof.	Godbout Ste. Anne de la Pocatiere
Beef Cattle	Wm. Gibson Indian Head, Sask.

Jerseys	A. R. Ness Macdonald College
Swine	J. C. Douglass Mitchell, Ont.
Sheep	John Guard-house Weston, Ont.
Heavy Horses	Wm. Graham Claremount, Ont.
Light Horses	Dean Barton Macdonald College

AYRSHIRE CATTLE AWARDS

The breeders showing Ayrshire cattle were as follows: J. H. Black, Lachute; Braeburn Farms, Ormstown; Wm. Clark Estate, Shawbridge; Peter Dickson, Ormstown; Ulric Deschamps, Repentigny; Robt. Elliot, Brysonville; J. W. Logan & Son, Howick; W. F. Martin, Montreal; J. R. McOuat, Ormstown; Gilbert McMillan, Huntingdon; Ernest McEwen, Ormstown; W. T. McEwen, Ormstown; P. D. McArthur, Howick; R. R. Ness & Son, Howick; E. T. Ness, Howick; Wm. A. Peddie, Howick; W. W. Skinner, Senneville; Jas. West, Howick.

The two classes which excited the most comment in this breed were the Aged Bulls and the Championship Cows. The Deschamps' bull, Major de St. Sulpice, was rather easily the top bull of the

Ayrshires, winning his class and the Senior and Grand Championships. This bull stood first as a 3 yr. old at the National Dairy Show at Milwaukee and was champion at Three Rivers last year. It was remarked at the ringside that it was doubtful whether there was a bull in Canada today which could beat the Deschamps bull in his present form. Certainly the development and proportion of fore quarter, neck and head of this bull are not frequently surpassed.

The Senior Cow Championship class brought together three individuals of outstanding merit. Black's cow, Netherton Sylvia, was a big, strong cow which many expected would be an easy winner. She was showing dry, however, which did not give her the chance to show her udder development to the best advantage, and which emphasized her tendency to be 'up in the air' just a little. Skinner's Ellersie Jessie was showing to excellent advantage, being just fresh and in wonderful fit. She does not have the same great spring of fore rib that the Ness cow possesses, though perhaps her udder would be considered a little the better of the two today. After careful inspection the judge placed the Ness cow, Burnside Blossom Andrietta, up. She also won the Junior record production class with a 305 day 4 yr. old record of 13,010 lbs. milk and 577 lbs. butter fat.

AYRSHIRES.

*Aged Bull.*—1. Ulric Deschamps, on Major de St. Sulpice; 2. J. H. Black, on Low Milton Artist; 3. R. R. Ness, on Macdonald Competitor 3rd; 4. Braeburn Farms, on Balsam Lodge Flashlight; 5. J. W. Logan & Son, on Alta Crest Conquerer Again.

*Bull 2yrs. and under 3yrs.*—1. E. C. Budge, on Penhurst Star; 2. D. T. Ness, on Ravensdale Cockade; 3. A. Bennie, on Burnside Sir Robert; 4. W. W. Skinner, on Macdonald British Consul; 5. Wm. Peddie.

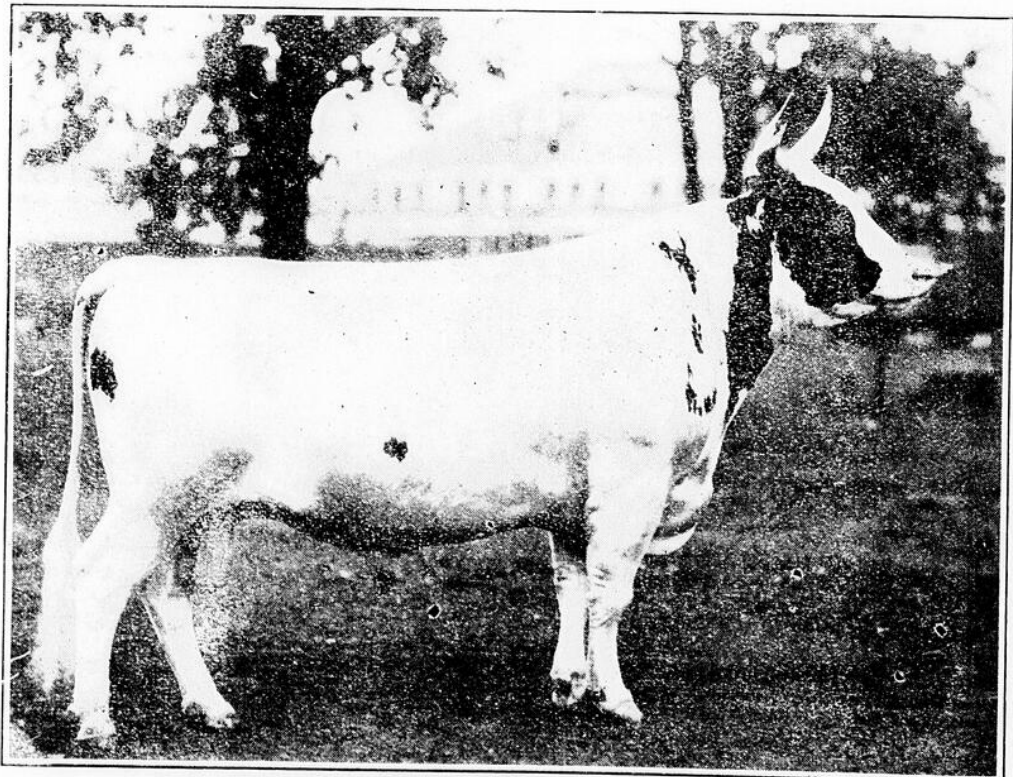
*Bull, senior yearling.*—1. R. R. Ness, on Beauty's Master; 2. J. R. McOuat, on Bridge View Fannie's Hero; 3. P. D. McArthur, on Cherrybank Monogram; 4. W. T. McEwen, on Honneyholm Victory.

*Bull, junior yearling, (6).*—1. D. T. Ness on Edgewood Sir George; 2. G. McMillan, on Prince Patrick; 3. P. D. McArthur, on St. Sulpice Colonel; 4. R. R. Ness, on Burnside Proud Watchman; 5. Braeburn Farms, on Braeburn Chief.

*Bull calf, senior. (11).*—1. R. R. Ness on Burnside Ever Good; 2. J. W. Logan, on Sunnyside Real Stuff; 3. J. W. Logan, on Sunnyside Bargain Day; 4. E. C. Budge, on Thorncroft Star Drummer; 5. W. W. Skinner, on Bois de la Roche Marquis.

*Bull calf, Junior. (4).*—1. R. R. Ness on Burnside Excellent; 2. D. T. Ness; 3. H. A. Clark, on Ascott

(Continued on page 14)



Major de St. Sulpice first in the three-year-old at the National Dairy Show at Milwaukee in 1924, senior and grand champion Ayrshire bull at Three Rivers and the Quebec Provincial Exhibition in 1925, and senior and grand champion at Ormstown. He is owned by Ulric Deschamps, Repentigny, Que.

# WHAT FEED SHALL I BUY

A Discussion of Feed Values, and How They are Indicated.

By E. W. Crampton, Animal Husbandry Dept., Macdonald College.

ONE of the problems that the farmer of today has to face is that of choosing from among the hundreds offered for sale, those feeds that are most suited to his purpose. With the growth of our population there has become available almost unbelievable quantities of grain byproducts, unsuitable for human consumption, but many of which are of more or less value as animal foods. Some are of more value as such than the entire grain from which they were made, while others are fit only for fuel or box packing. But all grades are being turned out by the milling concerns, and unfortunately a certain amount of all of them finds its way into the many commercially mixed feeds sold on our markets daily. To single out the good from the bad is no simple matter. Some attempt must be made to do it however in the interest of better feeding if for no other reason. From the farmer's viewpoint there is also the question of economy, for as some one has summed up the situation, "The good ones are expensive to buy, and the poor ones are expensive to feed."

Before going further it might be well to mention briefly what factors determine the value of a feedstuff. First, the product must be suitable for the purpose for which it is to be used. It must not be in any way injurious to the animal or to the product to be produced. Not all feeds are safe or suitable feeds in all places. Take for example, cottonseed meal, one of the standard protein feeds for cattle feeding, — for hogs and for calves it is often a fatal poison. Wheat bran is a standard dairy feed but entirely unsuitable for fattening hogs because of its high fiber content. Fish meal, an economical source of protein for growing hogs, if fed during the last few weeks of fattening produces an oily pork. Linseed oilmeal, the standard protein feed of eastern Canada, is not always a satisfactory feed to use when cows are first turned to pasture because of its laxative properties. And so we might go on giving example after example of unsuitability of some feeds when used in certain places.

Secondly, the value of a feed depends upon its chemical composition. All feeds contain certain chemical substances which when taken into the body of the animal enable it to function. Proteins are needed for the repair of worn out body tissues. They are the muscle builders. Lean meat is almost entirely protein. Plants contain a different kind of protein which when eaten by the animal is changed into animal protein. Now proteins are not all alike. In fact they are built up of some eighteen or twenty other substances called amino acids. Strange as it may seem, a given protein may entirely lack one or more of these "building stones" and the product still be called protein. There are three of these amino acids which are essential for the well being of every animal. Without them it cannot grow or sometimes even live. Some plant proteins lack one of these essentials and some another. Our safety, therefore, lies in variety. It is as an insurance against possible poor quality in the protein and mineral content of our ration that we try to have several feeds in our livestock rations.

The necessary energy for life processes and for whatever production is expected of the particular animal in question is furnished by the carbohydrates and fats. The former are mostly starch compounds and the latter are fats or oils. Enough of these nutrients must be furnished in the ration for maintaining body heat, and for digestion, and other operating needs before any production can be expected. After these requirements are satisfied the excess may be used for work, for milk, or for putting on body fat. The fats are about two and one quarter times as valuable as the starches for energy production in the animal body. This is why feeds high in fat are usually more nutritious than others, though this does not always hold true.

TABLE 2.

Parts of Home Grown Feed	Parts Commercial Feeds Used	Necessary Per Cent Protein in Commercial Feed to Make Mixtures as Follows :						
		14% Mix.	16% Mix.	18% M. x.	20% Mix.	22% Mix.	24% Mix.	26% Mix.
9	1	32	52					
8	2	22	32	42	52			
7	3	19	25	32	39	45	52	
6	4	17	22	27	32	37	42	47
5	5	16	20	24	28	32	36	40
4	6	15	19	22	25	29	32	35
3	7	15	19	21	23	26	29	32
2	8	15	17	19	22	25	27	30
1	9	14	16	18	21	23	25	27

Closely associated with the carbohydrates is another ingredient of feeds—fiber. This substance is but slightly digestible and is therefore more or less of a dilutant to the rest of the feed. Furthermore, it often happens that a considerable portion of the otherwise useful parts of a feed is enclosed within a fibrous envelope and is therefore lost to the animal. Thus fiber is an undesirable part of a feedstuff.

In addition to the proteins and carbohydrates, there are at least two secondary nutrients, the presence of which are not shown on chemical analysis, but which play a very important part in the nutrition of farm animals. They are the vitamins and the minerals. Of the former nothing will be said in this paper, since the average chemical analysis does not reveal their presence. The latter are contained in the ash left after burning the feed. This may seem to be contrary to a previously made statement, since the ash does appear in some feed analyses. The residue left after burning the feed, however, does not tell a story that is of much help to the feeder in regard to the mineral content of the product. Under most conditions it is only the calcium or lime and the phosphorous that he is interested in, and the ash figure tells nothing about this part of the problem. From the tag on the bag, then, little of value can be learned of the mineral content of a feedstuff, and for lack of space it will not be treated in this discussion.

The third factor in determining the value of a feed is one not often considered by the farmer. It is the fertilizing value of the product. Proteins are nitrogen compounds and it is known that but little of this nitrogen is lost through feeding the product to an animal. It is practically all recovered in the manure. Thus such feeds as cottonseed meal are often used as a fertilizer and spread on the land direct. A much greater value is to be had from this product, however, by first using it as a livestock feed and then returning the manure to the land. In the same way all feeds have some fertilizing value, the amount depending largely upon the protein content of the feed. It is perhaps a minor factor, but where two feeds sell for nearly the same price it may be the determining factor in the choice.

Lastly, and sometimes considered the all important factor, is the cost. And cost is a very important part of the problem to be sure, BUT it is cost per unit of nutrition and not cost per ton of product which should be the point considered. With commercially mixed feeds particularly, the cost per ton of feedstuff and the cost per pound of protein or of total digestible nutrients are not always correlated.

### HOW ARE THESE VALUES INDICATED ?

With this sketch, brief though it is, we are ready to go on to a consideration of how these values are indicated to the man who contemplates the purchase of one of them. It might be well to state here that while the general principles on which feed valuation is based are the same for any and all feeds, this discussion more directly applies to con-

centrate feeds and particularly to the commercially mixed products about which the feeder can get but little information other than that published on the tag on the bag.

As already intimated, a knowledge of animal requirements is one of the first points which must be considered in the valuing of a feedstuff. In this regard it is the protein that is usually the most important — not because it is any more important of itself, but because it is the part of the ration most apt to be deficient and also most expensive to supply. This state of affairs comes about because nearly all of our farm grains are themselves very low in protein. Thus we find an average farm grown grain mixture testing about 12% of total crude protein, while many of our animals need mixtures containing as high as 24 per cent of this nutrient. The amount of protein which a given meal mixture requires in order to meet the purpose for which it is fed is determined very largely by the kind and quality of the roughage with which it is being fed. This is a very important point in feeding practice, since the hay is ordinarily a home grown product while much of the grain is purchased.

The proportion of total crude protein which it is believed must be contained in meal mixtures to meet properly the needs of some of our farm animals is indicated in Table I. If the digestible figure is wanted it may be calculated roughly from this table by multiplying the figure in question by .75 since protein is, on the average, about three-fourths digestible. Ordinary feeding standard requirements are all stated in terms of digestible nutrients.

Table I. is not to be taken as a hard and fast rule, for every animal has its own peculiar need, but from a great deal of experimental work the above data has proven to be a useful guide in the compounding of satisfactory stock rations.

Fiber, a necessary evil in feeds, should not be present in excessive amounts or the efficiency of the ration will be markedly lowered. In general not more than 10 per cent to 12 per cent should appear in a dairy cow feed. For hogs it is considered that for every per cent of fibre in the ration above two per cent, the efficiency of the feed is decreased five per cent for fattening. Another station is of the opinion that eight per cent of fiber is the maximum for a satisfactory hog feed.

From the ordinary guarantee accompanying every package of commercial feed purchased, there is little to be learned of the feeding value of the product other than its protein and fiber content. In addition to this analysis statement there also appears a list of the ingredients included if it is a mixture. The proportions of these ingredients, however, are not disclosed, and aside from an inkling of what stuff goes into the product, it tells nothing of significance. From one's knowledge of the suitability or unsuitability of certain feed materials a little idea may be obtained of this side of the problem, but at best it is a guess.

There are two ways in which the protein—fat—fiber—analysis may be used. One is as a means of determining the quality of a commercial feed product. Certain common feeds are put out in more than one grade. Hominy, for example, is sold as high grade or low grade, there being a difference of about one per cent in the protein and four per cent in the fiber contents. Knowing the standard analysis, it is possible by comparison to rate the feed in question. Because of this difference which is found in two samples of the product, certain feeds should always be purchased on a guarantee basis. Usually the lower the grade of the product, the higher the fiber content.

(Continued on page 14)

TABLE I.—Approximate Per cent of Crude Protein Needed in Meal or Grain Mixtures for Farm Stock.

Class of Stock.	Kind of Roughage Used. (Hay)				
	Alfalfa	Clover	Mixed Clover & Timothy	Timothy	No Hay
Cows in Milk.....	15	15	18	22	—
Fattening Steers.....	11	11	14	16	—
Work Horses.....	11	11	12	12	—
Breeding Ewes.....	14	14	16	18	—
Fattening Sheep.....	10	10	14	17	—
Small Pigs.....	—	—	—	—	24
Pigs 50-100 lbs.....	—	—	—	—	20
Fattening Pigs.....	—	—	—	—	17
Nursing Sows.....	—	—	—	—	17

THE JOURNAL OF AGRICULTURE AND HORTICULTURE  
**STALLIONS INSPECTED AND RECOMMENDED BY THE QUEBEC DEPARTMENT  
 OF AGRICULTURE.**

(Continued from June 1st issue)

Arthabaska.		Eloi Jodoin, Boucherville, Farmer Boy, Synd. d'élevage, Boucherville, Jéricho II,		Clydesdale.		Joliette.			
Address of Proprietor	Stallion	Breed	Class						
Jos. Marcotte, St-Norbert,	Bijou,	Canadian.	1	Moise Héroux, St-Maurice, Haricot,	Percheron.	1	Adéard Villemure, Ste-Elisabeth, Sir Robert,	Percheron.	1
J.-H. Muldoon, Tingwisk,	Nigger,	Crossbred.	3	Arthur Marchand, Batican, John Dewey,	Percheron.	1	A. Delage & Cie, Co. Joliette, Rex,	Percheron.	1
Maurice Verville, Victoriaville,	Alcibiade,	Percheron.	1	Sinal Pronovost, St-Stanislas, Pit,	Crossbred.	4	M. Martinette, Ste-Elisabeth, Buick,	Percheron.	1
Arthur Gagné, Victoriaville,	John,	Belgian.	2	Arthur Toupin, St-Maurice, Black Jim,	Crossbred.	3	Pierre Bourrette, Ste-Elisabeth, Denis,	Crossbred.	4
F.-X. Labbé, Victoriaville,	Len-S.,	Percheron.	1	Sér. Plamondon, Ste-Thécle, Javert,	Crossbred.	3	Jos. Coulombe, Ste-Elisabeth, Lou de Valois,	Crossbred.	3
Delphis Sicard, Bulstrode,	Dick,	Crossbred.	4	O.-N. Cossette, St-Prosper, Vieux Chaslin,	Percheron.	1	Os. Bergeron, Lavaltrie-Sta., Oscar Swing,	Crossbred.	3
Arthur Gagné, Victoriaville,	Napoléon,	Belgian.	2	Fréd. Cossette, St-Adephe, Boy,	Crossbred.	3	Eug. Roch, fils P., Ste-Elisabeth, Jim,	Crossbred.	4
Amédée Fournier, Warwick,	Trépadour,	Crossbred.	3	Nérée Lahaie, Ste-Geneviève, Prince,	Crossbred.	4	Horace Couture, St-Félix-de-Valois, Olou,	Percheron.	1
Philippe Bernier, St-Patrice,	Pit,	Crossbred.	4	Fort. Trépanier, St-Tite, Le Taon,	Crossbred.	3	<b>Kamouraska.</b>		
Maurice Verville, Victoriaville,	Midnight,	Percheron.	1	<b>Charlevoix.</b>			Ferréal Lévesque, St-Pacôme, Edelweiss,	Canadian.	2
<b>Bagot.</b>				Henri Carré, père, Malbaie, Dukane,	Standardbred.	1	Emile Lévesque, St-Alexandre, Philistin,	Percheron.	1
Joseph Guertin, St-Dominique,	Tom,	Crossbred.	3	François Bhéer, Malbaie, The Shuttle,	Standardbred.	2	Théop. Duval, St-Pascal, Général Pershing,	Percheron.	1
Amédée Lapalme, St-Hugues,	Tom,	Crossbred.	3	Edouard Gagnon, Malbaie, Smith,	Crossbred.	4	Jos. Chénard, Ste-Hélène, Coq,	Crossbred.	4
Ed. Archambault, St-Dominique,	Viviani,	Standardbred.	1	Joseph Fortin, St-Irénée, Poney,	Crossbred.	3	Ecole d'agriculture, Ste-Anne, Article,	Percheron.	1
Arthur Dufresne, St-Pie,	Prince,	Crossbred.	3	J.-E. Lavoie, St-Hilarion, Nigger,	Crossbred.	3	Ecole d'agriculture, Ste-Anne, Elégant,	Percheron.	1
Alb. Deslandes, St-Dominique,	Sir Leonard,	Clydesdale.	1	Donnacona Silver Fox Co., Arnoldswold Star,	Percheron.	1	Ecole d'agriculture, Ste-Anne, Ero,	Percheron.	1
Louis Vandal, Clairvaux,	Prince Louis,	Canadian.	1	C.-H. Allard, Baie St-Paul, Pit,	Crossbred.	4	Joseph Lemieux, Ste-Anne, Earl Gray,	Percheron.	1
Arthur Dufresne, St-Pie,	Eugène,	Canadian.	2	Nérée Gilbert, St-Hilarion, John,	Crossbred.	3	Joseph Pelletier, St-Alex., George,	Crossbred.	4
Edmour Blanchard, St-Nazaire,	Lion,	Percheron.	1	<b>Chicoutimi.</b>			Isidore Prud'homme, Ferme Neuve, Bayard,	Belgian.	2
Ovila Proulx, St-Hugues,	Boxeur,	Crossbred.	3	R.-B. Ness, Kénogami, Baron Stockwell,	Clydesdale.	1	Jos. Bélanger, La Conception, King,	Crossbred.	2
<b>Beauce.</b>				Hercule Bouchard St-Ambroise, M. Grove Palm,	Percheron.	2	Alb. Coursol, MontLaurier, Joe the Banker,	Percheron.	1
R.-G. Morency, Ste-Marie,	Evan Bellini,	Standardbred.	1	Henri Laberge, Co. Chicoutimi, Jack,	Crossbred.	3	Jos. Sarrasin, L'Ascension, Dan,	Crossbred.	4
Ernest Poulin, Ste-Marie,	Prince,	Crossbred.	4	Dom. Grenon, Co. Chicoutimi, M. Grove César,	Percheron.	1	Is. Cloutier, Mont-Laurier, Bébé,	Crossbred.	4
Joseph Poulin, St-Joseph,	Prince,	Crossbred.	4	Pierre Tremblay, Ste-Anne, M. Grove Signal,	Canadian.	1	<b>Lac St-Jean.</b>		
Vital Lessard, St-Georges-est,	Black Prince,	Percheron.	1	L.-H. Petit, Co. Chicoutimi, Honoré,	Crossbred.	3	Amb. Jean, St-Joseph d'Alma, Champion,	Crossbred.	4
Emile Rodrigue, Beauceville,	Galant,	Canadian.	1	Edmond Blackburn, Co. Chicoutimi, Jack Musiquofor,	Percheron.	1	Francis Fortin, Métabetchouan, Early Bell,	Standardbred.	1
Adéard Drouin, Gde-Montagne,	Frank,	Crossbred.	3	Joseph Riverin, Co. Chicoutimi, Sunol,	Percheron.	2	Philippe Garneau, St-Prime, Governor,	Percheron.	2
Omer Poulin, Valley Jet.,	Jimmy,	Crossbred.	4	<b>Deux-Montagnes.</b>			Emilien Gagnon, Métabetchouan, Kinsmon Just,	Percheron.	1
Achille Paré, St-Jules,	Jayboy,	Crossbred.	3	Ecole d'agriculture, Oka, Ridley Blind,	Percheron.	1	Ovide Lapière, St-Prime, Prospect,	Percheron.	1
T. Grégoire, East Broughton,	Jouet jr,	Crossbred.	3	Joseph Desroches, Ste-Scholastique, Mastoc,	Crossbred.	3	David Néron, St-Joseph d'Alma, Binode,	Standardbred.	2
Georges Pelchat, Shenly,	Distigua,	Belgian.	1	Alphonse Viau, St-Joseph, King,	Percheron.	1	Louis Claveau, St-Gédéon, Prince,	Belgian.	1
<b>Bellechasse.</b>				Emile Giroux, St-Eustache, King Quality jr,	Percheron.	1	Edgar Gagnon, St-Gédéon, Sirdel,	Percheron.	1
Synd. d'élevage, St-Michel,	Max,	Percheron.	1	<b>Dorchester.</b>			Jos. Villeneuve, Ste-Croix, Prince,	Crossbred.	4
Cyrille Routier, St-Charles,	Valédo,	Standardbred.	2	Jos. Royer, St-Anselme, Honest Tom,	Crossbred.	3	Roy & Bélanger, St-Méthode, Saxon Aubrey,	Standardbred.	1
Damase Roy, Ladurantaye,	John,	Crossbred.	3	Georges Rouleau, St-Anselme, Prince,	Canadian.	1	J.-A. Jauvin, St-Joseph d'Alma, Farceur,	Percheron.	1
Edgar Roussenu, Ladurantaye,	Carman,	Crossbred.	4	A. Fauchon, St-Malachie, Jérôme,	Crossbred.	4	Louis Girard, Roberval, Noble jr,	Percheron.	1
<b>Berthier.</b>				<b>Frontenac.</b>			J.-C. Doucet, Albanel, Prince,	Crossbred.	4
Jos. Robillard, St-Cuthbert,	Pascal,	Percheron.	1	Jos. Blais, St-Evariste, Prince,	Crossbred.	4	Roméo Grenier, Normandin, Pit,	Crossbred.	3
Oct. Drainville, St-Barthélemi,	Ben,	Crossbred.	3	Napoléon Mercier, Spalding, Grey Bird,	Percheron.	1	Osiat Tremblay, St-Bruno, Joseph,	Canadian.	1
Arthur Paquin, St-Charles,	Rasta,	Percheron.	1	Louis Bignon, St-Méthode, Prince,	Crossbred.	3	Urbain Hudon, Hébertville, Smith,	Crossbred.	4
Arsène Denis, St-Norbert,	Baron,	Canadian.	1	Edmond Proteau, St-Sébastien, Chançard,	Belgian.	1	Osiat Tremblay, St-Bruno, Preston,	Percheron.	2
Avila Jetté, Berthierville,	St-Marque,	Standardbred.	1	Joseph Dallaire, St-Ludger, Black Jos.,	Crossbred.	4	Adol. Rousseau, Mistassini, César,	Percheron.	1
Arsène Denis, St-Norbert,	Iroquois,	Canadian.	2	Cyrille Bureau, Lambton, Buster Boy,	Percheron.	1	Edgar Gagnon, St-Jérôme, Bijou du lac,	Percheron.	1
Ephrem Pelletier, Lavaltrie,	Prince,	Crossbred.	4	<b>Iberville.</b>			Adéard Fortin, Chambord, Prince,	Canadian.	2
Jos. Pelland, St-Norbert,	Smart,	Crossbred.	4	Lucien Lamoureux, Henryville, Koutelas,	Percheron.	1	<b>Laprairie.</b>		
Anselme Cabana, St-Cuthbert,	Prince Charmant,	Canadian.	1	Arthur Brault, St-Alexandre, Sultan,	Percheron.	1	Pierre Foucrault, St-Constant, Frisco,	Crossbred.	3
<b>Bonaventure.</b>				E. Nadeau, Henryville, Bruce,	Belgian.	1	Edmond Poupert, St-Isidore, Boy,	Crossbred.	3
J.-E. Lévesque, Paspébiac,	Forbes Johnson,	Standardbred.	1	Philippe Roy, Henryville, Joanathan,	Percheron.	2	Conrad Cusson, St-Constant, Tom,	Crossbred.	3
<b>Chambly.</b>				<b>Jacques-Cartier.</b>			Narcisse Miron, St-Constant, Tom,	Crossbred.	3
Honorius Lafrance, St-Basile,	Baron Darnly,	Clydesdale.	1	Isaie Meloche, Ste-Geneviève, Pit,	Crossbred.	3	Narcisse Miron, St-Constant, Frank,	Crossbred.	3
Achille Ménard, St-Basile,	Bomhomme,	Crossbred.	3	Pierre Goyer, St-Laurent, Bill,	Crossbred.	3			
Solyme Monty, Chambly Bassin,	Chambly,	Crossbred.	4						

(To be continued)

# "The Cattle Trail"

By John West, Student in Agriculture at Macdonald College.

"Travel, in the younger sort, is a part of education"—Francis Bacon.

OF all the thousands who annually attend college but few appreciate the meaning of education in its widest sense, and fewer still realize that they can supplement their education during vacation without missing an iota of the carnival spirit.

There are many paths which lead to Europe across the broad Atlantic, and the selection of one of them rests upon two factors—money and inclination. If one has a large income, it is easy to travel by an ocean greyhound which reels off the miles as swiftly and as surely as the ship's cook peels potatoes. But with such travel-de-luxe, one meets the same types of characters and leads the same mode of life as when ashore. Let him who has but little money, and yet wishes to see the life of other than his own caste, travel as a unit in the great machine of the Mercantile Marine.

The exportation of beef cattle from Canada to England is at present a thriving trade, nor does it lack prospects of potential development. England, a manufacturing island almost entirely, cannot produce a tenth of her food requirements. Her population has increased by upwards of five millions since the commencement of the Great War, and the English as a whole are fundamentally great meat eaters. Now, English beef is unsurpassed the world over for flavour, on account of the meadow pastures with which the Old Country is enclosed. But the supply is totally inadequate. Since Canada can make up in quantity and cheapness what she lacks in quality of beef, there has quite naturally developed the existing cattle trade.

The care of cattle while at sea is at best but an irregular means of livelihood, so that heretofore there has been some difficulty in obtaining men to do the work. And so the various cattle companies have evolved a plan whereby they can obtain cheap

and moderately efficient labour without much trouble. Anyone desirous of returning to the Old Country is told by the representative of the company that he can cross the ocean, stay in England for any period up to nine months, and then come back, all in return for a mere ten days work. That the plan works well is witnessed by the ever increasing number of college students who make the trip each year. All that the would-be cattle man requires is a ten dollar bribe for the shipping agent, and a certain amount of health and strength.

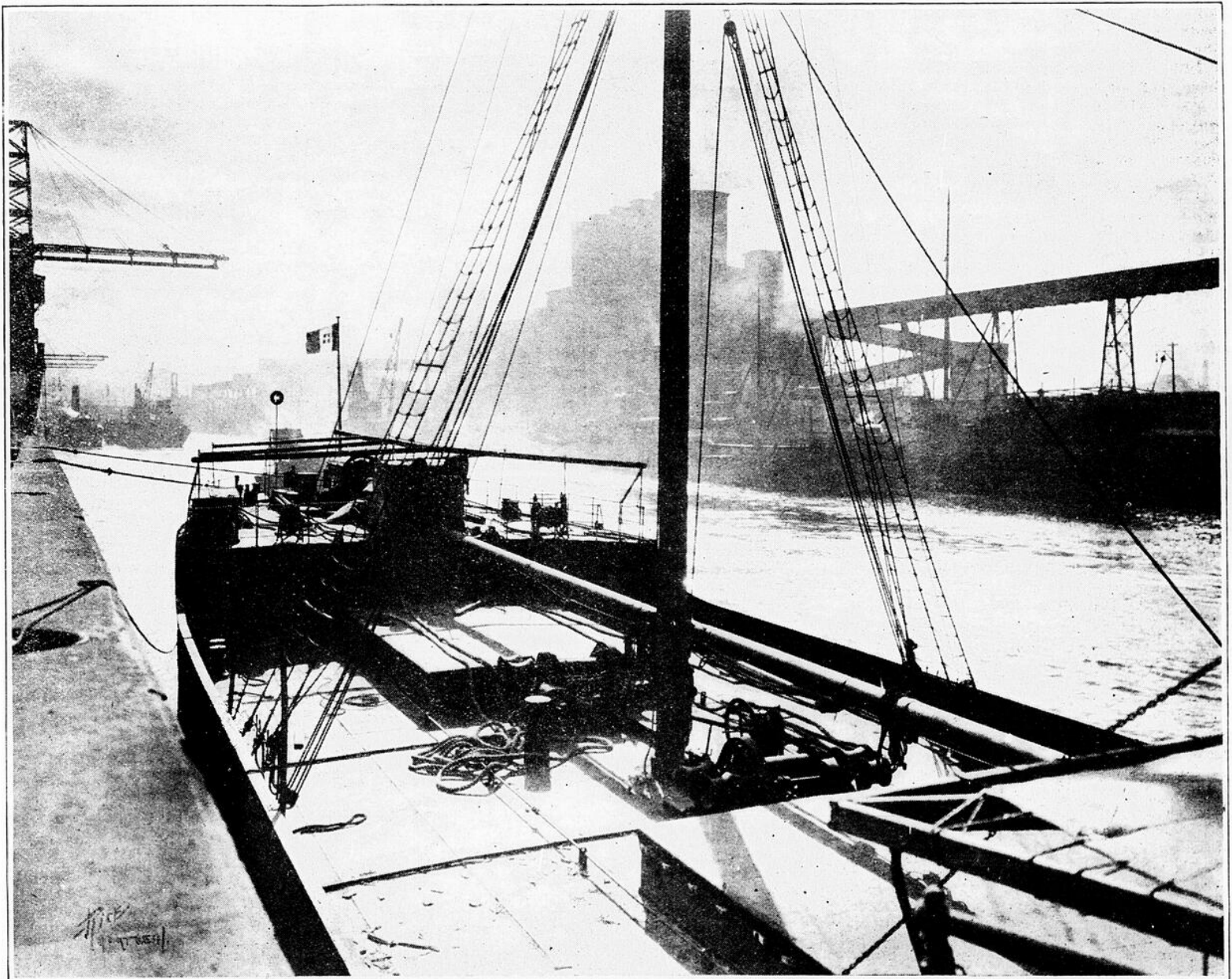
The entire process, from the time the cattle leave their grazing grounds till they reach the English slaughter houses, is both simple and efficient. The cattle are shipped from Ontario and the West in such a way that they spend the shortest possible time on rail, and arrive in Montreal the night before the boat is due to sail. They are driven on board early the next morning, and put in their respective pens. On most of the cattle boats both the lower decks are given over to cattle, and in some boats part of the upper deck as well. The pens consist each of a long row of planks about three feet from the ground, which enclose a space some ten feet wide and running the entire length of the boat. On each deck there are four such pens, one on either side and two in the centre back to back, with a two foot alley way on either side between the outer and inner pen.

The first job for the new cattlemen, as the boat pulls out of dock, is to tie the cattle up. This is a somewhat long and hectic process, since the steers are unduly excited, and the rope around the neck of each animal has to be passed through a small hole in the head board and knotted there. When one considers furthermore that there are from twenty

to thirty inexperienced cattlemen to tie up a thousand head of cattle, the difficulties of the task becomes apparent. Generally two days elapse before the last of the cargo can be "sheeted home".

In the interim, feeding has to be carried out. The cattlemen are divided off into four sections, each under an assistant cattle foreman—one of a few regular men besides the crew. Each section has some two to two hundred and fifty head to look after. The day starts at 4 a. m. when the gang are turned out. After a hasty snack of biscuits and hot coffee, each squad goes off to feed and water its respective charges. The cattle are given as many buckets of water as they will take, generally about three apiece. The usual method is to form a line along the alley from the drinking cattle to the water butts, which stand about twenty feet apart, and pass full and empty buckets from man to man. This may sound simple, but experience shows that a steer has an unhappy propensity for knocking over the bucket in his effort to drink all the water at once. And one is furthermore likely to receive a skinned shin in attempting to prop the bucket with one's legs. When all the cattle have embibed their fill of liquid nourishment, they are given a light repast of hay, which has to be shaken out along the alley way in front of them. By now, it is nearing 7 a. m. and breakfast time.

At 9 a. m. the gang again turns out to hand up the day's ration. Some man the steam winches; others stand by to unload; while others, more unfortunate than their brethren, have to descend into the bowels of the ship to load the hay and grain. It is difficult to imagine a more heating task than that of working down in the hold without much light but with plenty of dust and bad air, lifting two hundred pound bales of hay and sacks of grain



WHERE "THE CATTLE TRAIL" BEGINS.—The harbour at Montreal is the usual shipping point in summer for Canadian steers for export. (Photo by Rice)

### An Inexpensive Ocean Voyage

There may be some among our younger readers who are consumed with a desire to see the world but who are prevented from gratifying this desire through want of capital for travel. For the benefit of these we have persuaded Mr. West, a Macdonald College student who went to England last summer via the cattle boat route, to give us an account of the voyage as he found it—which account we present herewith.

This method of working one's way to the Old Country has become increasingly popular with college students during the past few years. We have talked with a considerable number of Macdonald College students who have made the trip and all were enthusiastic over it—though adding the cautionary word given by Mr. West concerning the advisability of taking along a few extras in the way of palatable food.

Incidentally, a Macdonald College student was one of the hands on the ill-fated MANCHESTER PRODUCER, which, when about 400 miles from Newfoundland, lost its rudder, and drifted helplessly for almost a month before being picked up, well out of its course, and towed into the Azores. In this particular instance the cargo of steers had to be jettisoned,—a fact which has been made much of by English opponents of the free admission of Canadian cattle to Great Britain. But from a letter from the aforementioned student, which we had the privilege of reading, we should say that he did not enjoy his trip the less on account of the accident. A new adventure, he thought it.

The Editor.

nearly as heavy. When enough fodder has been drawn up, the gang sets to and "grains" the cattle. Each steer is given a heaped up bucket of grain, which disappears like water into parched earth. By this time it is nearly 11 a. m., and the cattle men are free till the dinner hour at noon. At 2 p. m. the gang again begins its hopeless task of trying to stay the insatiable bovine appetite. First of all the cattle are well watered, then bedded down with straw, and finally given a full supper of hay, each steer receiving about thirty pounds of hay, often more. After supper, which is served at 5.30 p. m., the alley ways are swept clean, and the cattle given a final look over. The days' work is then over, and the weary cattlemen are free till the next morning.

Such is the life of the average cattleman during working hours. His private life, though not so strenuous, is no less interesting and varied. His quarters may be up in the bows, or back in the stern above the propellers. The cabin consists of a number of six by two feet bunks set in tiers, each containing a pal'sse, a sack-covered pillow and two blankets. In the centre space stands the mess-table, a rather crude but very serviceable erection. During the day the cabin is very little used other than at meal times, for the broad expanse of sparkling ocean with the blue sky overhead, and perhaps a steamer way off on the horizon, has an attraction all its own. One finds it difficult to get accustomed to the feeling of vast space and utter loneliness which seems to brood over the ocean. Perhaps this is not so apparent during the day, but one has only to wait till nightfall to understand how overwhelming is the spirit of the deep. All around black night has laid her mantle, the sky overhead has spread its canopy of glittering jewels, and the great boat glides onward, silent save for the whisper of the water and the muffled throb of the engines.

Down below, the cabin offers a striking contrast. The atmosphere is blue with tobacco smoke, through which the electric bulbs shine mistily. In one corner sit four or five "poker" experts, utterly oblivious of everything around them. In another corner two students are writing up their diaries, for this is their first journey abroad. Around the table lounge the remainder of the cattlemen "swapping lies"—college students from every great American University, farmers who homesteaded in the West forty years ago, men who travel round the world consumed by the wanderlust, human failures beaten by fate, even clergymen,—no wonder they have so much to say. It is this conglomeration of so many types which makes the trip such an education in itself. Here one hears tales from every quarter of the globe, tales which, were it not for the sincerity of the tellers, prove well nigh unbelievable. And if one wishes to hear real fantasies of the imagination, one has only to go into the crew's quarters, where the atmosphere is even thicker and the characters more varied. There one may meet an ex-Texas Ranger, a degraded aristocrat, and even occasionally a true-blue deepwaterman. This close contact with so many different characters gradually

develops in one the power of summing up a personality on sight, and the knack of being able to rub shoulders with one and all.

When one travels "The Cattle Trail", there are no luxuries. The sleeping quarters are rough and ready, though one is generally so dog tired that sleep comes in spite of everything. The food on some of the lines is very poor, while on others it is rough but wholesome. It was the writer's luck last summer to happen upon a poorly fed line. The staple diet was Irish stew, morning, noon, and night, varied occasionally by "sea pudding". Were it not for the extra rations obtainable from the cook in return for bribes, the food would prove entirely inadequate. There is a legend about this particular line to the effect that should the boat come into port with seagulls following in her wake, the cook will be sacked immediately for throwing edible refuse overboard.

The journey across the Atlantic takes ten days under fair weather conditions, and the dirty docks at Liverpool or Glasgow look fair indeed to the

wearied eyes of the cattlemen. As soon as the boat docks, an inspector comes aboard to overlook the cattle. Then they are driven ashore, most of them to be killed at once. Meanwhile the gang unloads all the surplus hay and grain, sometimes no small amount. After this the cattlemen are signed off, and are then free to go wherever they will.

The return journey is generally monotonous, since there is nothing to do but eat, talk and play cards. The redeeming feature is that one is able to watch the beautiful panorama of the River St. Lawrence, an impossibility on the outward journey owing to work.

Now, whoever takes "The Cattle Trail", must be prepared for a rough time, poor food and hard work. Yet the trip has many compensations. It enables one to get to England at a cost of ten dollars. It is an experience which enables all who have passed through it to form a different outlook on life, an outlook based on first rate knowledge. And finally it allows one to form a true appreciation of the comforts and refinements of home.

## "Do Your Timothy Cutting Early"

A Reminder as to the Time to Cut for Hay.

Dr. A. McTaggart, Agronomy Dept., Macdonald College.

A timely reminder, to all concerned in the production of prime hay, anent the best time to cut can never be amiss, particularly in view of the all-too-common wrong farm practice of cutting timothy hay when the seeds have set and are approaching the ripened stage, or even during the seeds ripe stage itself. For reasons enumerated below, the farmer should arrange, as far as the weather and circumstances permit, to commence cutting his timothy at or very soon after the blooming stage, so as to ensure the mowing of the last of the crop before the seeds have become fully set. This plan provides for the harvesting of the hay crop when the bulk of it is not too mature; and, fortunately, timothy is a grass that favours intermittent cutting, of the whole area to be cut, on account of the fair length of time that elapses between blooming and ripened seed stages. Moreover, by reason of the fact that common red clover, a crop commonly grown with timothy for hay, matures, on the average, some two weeks earlier than this grass and begins to fall off in percentage digestibility even before blooming, it is all the more necessary that the cutting of timothy (mixed) should be commenced early, not later than the blooming stage.

Experiments conducted for 12 years at the Missouri Agricultural Experiment Station showed that the total yield of dry matter in timothy hay was, on the average, greatest when cut at the stage when seed had just formed; that the total amount each of protein, ether extract (oil, etc.) and ash per acre was greatest in timothy hay cut at full bloom; that the sugars and starch were highest when the crop was cut when the seed was in the dough stage; and that the crude fibre was greatest when this grass was cut when the seed was just formed. Investigating digestibility, Waters and Schweitzer (Missouri Station) found that the total amounts of digestible protein, sugars and starch, crude fibre and ash were greatest when timothy was cut at full bloom; and that oil etc. was most digestible when the grass was cut when its seed was in the dough stage. They showed that the digestibility of timothy hay is greatest when cut in the youngest stages and that it gradually decreases when cut in the later or maturer stages. The digestibility of the protein and of the crude fibre is also greatest in the early stages, but this fact is less marked in the case of the sugars and starch, according to the same investigators.

According to Morse (New Hampshire), timothy yields the largest amount of digestible protein when cut at the beginning of bloom, and the total amount of digestible matter is largest when the grass has passed out of blossom or had "gone to seed".

Dr. Shutt (Ottawa), also, investigated timothy hay (containing 15% water) cut at two different stages, namely, (1) "seeds formed" and (2) "seeds fully ripe". In (1) he found 14.27% protein, 24.16% fibre, and 59% digestible dry matter. In (2) he found 6.98% protein, 25.95% fibre, and 52% digestible dry matter.

While cutting at the full bloom stage does reduce the yield of timothy hay slightly as compared with the seed-formed and dough stages, yet it shows a greater yield in comparison with the seed-ripe stage, according to the following five-year-average figures of the Missouri Station:

Stage Cut.	Water-free timothy (lbs. per acre)
Coming into bloom. . . . .	3411
Full bloom. . . . .	3964
Seed formed. . . . .	4089
Seed in dough. . . . .	4038
Seed ripe. . . . .	3747

In the light of the above-recorded facts, it will be readily seen just why the blooming stage, or as soon as possible thereafter, is recommended for commencing the harvesting of the timothy hay crop—by far the most important crop in Quebec. If the bulk of the hay crop is cut at the stages ranging from "full bloom" to "seeds formed" the best yield of timothy consistent with digestibility of nutrients for use in animal-feeding will be obtained. In other words, maximum production of prime hay which will prove fully effective, as far as hay goes, in providing animal sustenance and increase is assured if the crop is cut at this not-too-mature stage. This statement of course assumes that every care is taken, weather-permitting, in the curing and storage of the hay. But, apart from the importance of the actual making of hay and of storing it under the best possible conditions, cutting at the right stage contributes very materially toward the production of prime hay. This fact should be specially noted by those farmers who make a practice of cutting their timothy when fully mature—when seed has set, or later.

### Prosperity Ahead For The Canadian Live Stock Industry

PROSPECTS are now very encouraging for the Canadian live stock industry, in the opinion of the Dominion Live Stock Commission. There has been a long period of depression in this industry but there is now every indication of a change for the better. The year 1925 was the best year for the feeder of good live stock in the last quarter of a century, and there is no reason why, given normal pasture and feed conditions during the next few years, that the profits from cattle, sheep and swine production should not more than compensate for the post-war depression. A review of the live stock market and meat trade in 1925 has just been issued, and is distributed free by the Publications Branch, Department of Agriculture, Ottawa. The Review shows that, on account of the good demand for feeders and stockers to turn the big crop of winter feed into money, and an improved consumptive demand for beef for both home and export trade, prices were unusually high and steady. The average price of cattle during the last three months of the year was from 90 cents to \$1.35 per hundred pounds higher than in 1924. The hog situation was remarkable for strong and steady prices and an improvement in quality. In fact the per head value of hogs of good bacon quality was fully \$7 higher than during the previous year. Sheep and lambs were a paying proposition in 1925, but supplies were short. If the quality of our live stock products are maintained or improved there is no reason why the present prosperity of the industry should not continue. No surplus of meat stock exists in any of the chief producing countries, and with improved purchasing power and increased consumption at home and abroad, demand and prices should continue to be favourable.

## Grading Increases Egg Consumption

Statement by Hon. W. R. Motherwell Tells of Remarkable Progress Made in Canadian Poultry Industry Since Grading Was Introduced.

EGG production in Canada has increased by over one hundred million dozen, or seventy per cent, since 1920, according to a statement issued by Hon. W. R. Motherwell, Minister of Agriculture, who points out that this enormous volume of eggs has been consumed almost entirely in Canada as a result of the improved quality and increased consumption brought about by the application of the egg regulations. Canada's egg production in 1920 was one hundred and forty-four million dozen, and in 1925 two hundred and forty-nine million dozen. But whereas in 1920 Canadians consumed only 16.8 dozen per capita, in 1925 the per capita consumption was 26.8 dozen.

### INCREASED CONSUMPTION MAINTAINS PRICES

Mr. Motherwell points out that had it not been for the decided increase in consumption of eggs, Canadian markets would have been swamped by the surplus and the poultry industry would have suffered as a result. It is true that there might have been an increase in exports, but these would have been at a price, on world markets, that would have left little profit for the Canadian producer, in contrast to the returns that have been obtained for sales made on our own markets.

On the other hand, the last three years have been the best ever experienced by poultry producers in Canada. Prices have been maintained largely at profitable levels, the industry has gone ahead by leaps and bounds and in the back-to-the-land discussions among the urban population, the poultry industry is one of the phases of agriculture most favorably considered. A great deal is written about the poultry industry in the United States. In the United States, however, egg consumption increased only two dozen per capita in the five years from 1920 to 1924 inclusive, while in Canada in the same period, egg consumption increased almost ten dozen per capita.

### BENEFICIAL RESULTS OF EGG GRADING

This very satisfactory condition of the poultry business has been brought about very largely as the result of egg grading. Egg grading in Canada has been in effect since the spring of 1918. It was first applied to export and interprovincial shipments, later to import shipments, and in the summer of 1923 to all eggs offered for sale in a domestic way. From facts at hand, it is reasonable to believe, if the quality of Canada's eggs had not improved, consumption here would have increased no faster than in the United States, and one of two things would have resulted. Either prices would be materially lower than they are today or the poultry industry would not have attained its present dimensions.

In the application of grading attention was at first directed naturally to those points where the product was handled in the greatest quantities and was most easily accessible. This has meant that the grading of eggs for domestic purposes was applied first in the larger urban centres where the bulk of the eggs pass through the regular wholesale and retail channels. The increased consumption in Canada noted above has been brought about largely in this way. In the further extension of the policy, and appreciating the results that have already been attained, attention is now being directed to the smaller cities where the majority of eggs for home consumption do not pass through the wholesale trade. In this manner the producer, on public markets and elsewhere, is being brought into more intimate contact with the egg regulations and it is important that he should appreciate their value to the industry.

### CAUSES AND EFFECTS OF POOR EGGS

From a careful study of the matter, it is evident that producers working in all sincerity, have often failed to realize the numerous causes that bring about deterioration in eggs, and as a result eggs have often been sold by them which were of such poor quality as to adversely affect consumption. Every time a consumer gets a bad egg or an egg of poor quality the consumption of eggs in that consumer's household is materially lessened. Instances could be cited where customers have been lost and the sale of eggs hurt on an entire market without the producer realizing that the thing had been done. Too many producers are inclined to argue that because their eggs are fresh gathered they must be fresh and of good quality. Too many fail

to appreciate that fresh gathered and fresh laid are not necessarily synonymous; that stolen nests may contain fresh eggs and partly incubated eggs all in the same gathering. Bad eggs marketed by producers on public markets have done more proportionate harm to consumptive demand than bad eggs marketed through regular trade channels for the reason that even before the advent of the egg regulations most eggs passing through the wholesale trade were candled and the bad eggs removed.

In the fall of the year "seconds" are quite largely stale, held eggs. In the Spring and Summer eggs are graded as "seconds" largely because of high yolk color and weak whites.

### INFLUENCE OF FEEDING ON THE QUALITY OF EGGS

Few people realize the effect of feed on egg quality. The ideal egg comes from hens fed clean feed, kept in clean houses, on clean litter, and given clean water to drink. Eggs produced under such conditions show light colored yolks and strong, clear albumen and possess a pleasing, uniform flavor. Eggs from hens obliged to pick up their living in the barnyard and on the manure pile, and to drink barnyard water, have weak whites and extremely high colored yolks. Many producers will hardly credit this. It explains, however, why so

## July Ornamental Gardening Topics

### The Iris—General Pointers

By M. H. Howitt, Horticultural Dept., Macdonald College.

#### THE IRIS



Shows the range of possibilities in iris divisions. That on the right is rather small but will do nicely. That on the left is unnecessarily large.

THE first flowers of the garden have been enjoyed and now nature is content with less bright color until fall. There are still busy times ahead this month if one is to keep the garden shipshape and make the most of the available flowers. The wise gardener will have planted a number of annuals and these should be given careful attention to bring them along rapidly, so that they will supply color at times when there is little among the perennials.

All flower heads should be removed as soon as the bloom fades and the plants should not be allowed to produce seed, unless one wishes especially to save it for sowing. The removal of flower heads is particularly necessary with bedding plants of all kinds. To keep window boxes looking their best, all dead leaves should also be promptly removed.

Spring flowering shrubs should be pruned soon after they have blossomed. Remove the surplus and the very old wood that has flowered. As soon as the lilac, spiraea sorbifolia, etc., have finished flowering, the remains should be removed before they have a chance to produce seed. The production of seed uses up a certain amount of vitality which could be used by the bush for producing growth and next year's buds. Also the seed heads, if allowed to form, are conspicuous and unsightly.

Rambler roses will require a thinning at this time. Remove the old wood soon after flowering is over. Fasten up the new canes, selecting only the most desirable of the new growths and giving them plenty of room.

many new laid eggs fall into the lower grades and why, unconsciously perhaps, the demand for the higher grades increases so fast once the eggs offered for sale on public markets are properly graded. The effect which feed can have on quality proves the absolute need of grading, for candling and grading is the only means by which a miscellaneous product, coming from so many different sources, can be properly assorted on the basis of quality. Producers must realize these facts before they can justly demand the highest prices for their product.

That increased consumption has been brought about in the larger urban centres as the result of a graded, standardized product is beyond question. The same opportunity is offered in the smaller towns and cities where the bulk of the eggs used locally are purchased on the market from producers either directly by consumers, or by retailers who in turn sell to consumers. The extent to which this opportunity can be capitalized in these smaller centres and turned to the advantage of the poultry industry rests largely with the producers.

The egg regulations are a friendly law which are continually bringing additional profits to poultry producers. Instead, therefore, of hesitating to place a grade on his product, the facts have shown that the producer might well welcome the opportunity to do so, not because it is required by law, but because it is good business to properly grade everything he sells. The producer would do well to build up in the minds of his friends and customers an appreciation of the significance of the grade names in relation to quality. A satisfied customer is a business' greatest asset.

Whether grown in the perennial border or beds on the lawn, the iris will require rather different and somewhat special treatment from the general run of perennials. Any loamy, well drained garden soil will suit them best, though they will do very well on quite gravelly or stony soil. They show a preference for sunny positions and are most floriferous in such situations, but, again, will flourish and bloom reasonably well in somewhat shaded places.

July is considered a good month for planting operations. The regular season for perennials, August 15th to September 15th, will do very well and will give the plants time to become well established before winter sets in.

*Planting The Bearded Varieties:*—When the fleshy roots (rhizomes) commence to crowd and pile up on the surface of the ground, it is high time to divide the clump and replant. Some varieties of iris develop this ringlike form with a practically leafless centre much sooner than others. Ordinarily iris will need dividing every four or five years to keep them in the best of flowering condition.

The plant is propagated by division of the rhizomes, which separate quite readily. Whether dividing your own clumps or planting a new bed, use only single pieces, commonly known as "standard divisions", or at most double pieces. These will prove plenty large enough and in fact will do much better in the long run if only the young growth is used. A standard division consists of a piece of the rhizome well rooted and the accompanying group or fan of leaves.

The rhizome grows naturally on the surface of the soil where it gets a maximum of sunlight, which keeps it in a healthy state. Therefore it should not be planted deeply. When the earth that you fill in is just about level with the top of the rhizome, the plants are at the right depth. The soil when settled will leave the plant resting in the proper position so that the roots are just nicely covered.

*Planting The Beardless Groups:*—The Iris sibirica and I. orientalis are representative of the type which produces slightly fleshy but mostly fibrous roots which may be divided like perennials. As the old and young growth is closely mixed in the plant, it is only necessary to separate the roots into somewhat triangular pieces of the right size (3 to 4 inches) and plant them like perennials with the crown just nicely above the surface of the ground. Where the ground is reasonably rich in humus, commercial fertilizers are considered excellent and even superior to rotted manure. Wood ashes and bone meal applied at the rate of an ounce to three to four square feet are recommended.

# OUR YOUNG FOLKS

## "What I am Going to do During my Summer Holidays."

(First Prize Essay)

ONE of the chief thrills of a school girl's or boy's life is when the summer vacation comes. Although the children welcome these holidays, they understand that too much play without any work is very harmful to the body as well as the mind. The vacation starts in the month of June, when the weather begins to get warm, and the grass is of its glossiest green, and when you see great masses of bloom all over the country side, with the little birds all joining into a chorus of melodious songs.

These first days of the holidays are spent in high excitement, discussing whereabouts or how we will spend our long holiday. When that is discussed and decided upon, we start our preparations, packing our clothes, making lunches and last of all closing the house.

Last year we went to the seashore, therefore this year we are going to the mountains. We have a little cottage on the side of a bank of a river, that runs and jumps and splashes angrily up against its banks as if waiting to grasp some prey. All this is surrounded by the beautiful tints and colours of Mother Nature. In some places two or three miles back of our cottage, we admire all the delicate colours of the rock such as crimson, mauve, bronze, green, orange, shaded daintily together. In the evenings, when we are sitting on our veranda we are given a free concert far more entertaining than the radio concert, by the birds. We have then the frogs orchestra lighted up by the lamps of fireflies. We have numerous amusements for the different hours of the day, such as swimming, tennis, croquet, picnics, going on hikes, and best of all wandering throughout the woods watching for any little animal, that might peer out at us, while we are picking the sweet scented flowers.

As the holidays drawn near a close, we look back upon the glorious times we have spent and we regret that they have passed all too quickly, but realize that the way to enjoy them to the fullest extent always, is first of all, to have earned them by working faithfully during the year. Then we can all agree heartily with the old adage "All work and no play makes Jack a dull boy."

ANNA WILSON,  
(Age 15 years). R. R. No. 1, Hull, Que.

(Second Prize Essay)

During my summer holidays I expect to be working most of the time. I live on a farm so I shall have quite a few different things to do. Our farm contains one hundred and seventy acres of land. Out of this we hay about twenty-five acres each year. The important part of the haying I expect to do is to help cock up the hay, shake it out to dry and to help to load the hay and mow it away.

I intend to work in the garden also, as I took quite a few different kinds of seeds for our School Fair. How nice it will be to have a good garden if I keep it free from weeds! I also expect to go berrying when berrying-time arrives.

I also took a setting of Plymouth Rock eggs for our School Fair this year which have not hatched yet. If they hatch I shall have some more work to do to take care of them. If I only take care of them in the right way and nothing happens to them I expect to have a nice flock of poultry by the end of the summer.

During my summer holidays I expect to prepare all the exhibits I can for Sherbrooke Fair and our School Fair. By working during my holidays for these fairs I earn money by winning prizes and I am able to deposit several dollars in the bank each year.

I also expect to take as many music lessons as I can this summer so that when I am grown up I shall be able to play.

I am a member of the "Y" and it meets once a month so I expect to attend it this summer and to help to do all I can to help it along. I also expect to attend Church and Sunday School each Sunday.

During my spare moments I may go fishing, play ball or take part in some other amusements. Wishing all "The Young Folks" and Judges a happy summer vacation.

LESTER D. JOYCE,  
(Age 14 years) Bishop's Crossing, Que.

## Contest Closes Until Autumn

From the small number of essays received during May and June we take it that Our Young Folks find the summer months unsuited to desk work. We are therefore discontinuing our contest until after the holiday season.

Watch for reopening announcement in the autumn.

THE EDITOR.

(Third Prize Essay)

As holidays are coming on mostly all the school boys and girls will be thinking of what they are going to do with themselves in that time. I am one of them. I am not going to plan too much, because (as some folks say,) it is not wise to count your chickens before they are hatched, but anyway I am going to plan a few things which I am sure of getting.

The first thing I mean to do is to go picking wild strawberries when they are nice and ripe. If I pick many, I shall perhaps preserve a few.

Haying will also be started, and I hope to be able to help a little at it, especially, to drive the horse for the horsefork. When the hay is wet or else too green, some of the others and myself, will perhaps be able to go blueberry picking. I like picking blueberries especially, if I can find a place where there is plenty of shade from the trees, also if the berries are large and juicy.

As soon as the harvesting has begun, I want to go to my Aunt's, as I do not care to watch the men threshing or to even help them, because it is often very dusty. The reason why I want to go there is, because I do not think I shall have to do that kind of work. While I am there I would like to learn to swim, I learnt a little last year but not enough to save myself nor anyone else from drowning, if anything should happen. I also hope to be able to play with my other little friends, who are next neighbours to my aunt. They have a shetland pony with which I am sure to have lots of fun riding and driving. I hope to be able to stay two weeks or more. Then again, I hope to be able to get to a few picnics, where there is sure to be plenty of fun.

By the time I have enjoyed all about which I have told you, along with a few other things which are not worth mentioning, it will be time to start back to school once more.

EDNA McRAE,  
(Age 13 years) Howick, Que.

## JUDGE'S REPORT

Dear Boys and Girls:

For some reason or other there were very few essays sent in on the subject of holidays. Perhaps you were too busy getting ready for exams. In any case I was disappointed both in the numbers and in the quality. The spelling in some was very poor, and in others the writing was careless and untidy.

I have no time just now to write you a long report, as I am too busy at school to think much about holidays, but I shall just drop you a few lines.

The chief thing about a holiday to make it enjoyable is that the person taking it should get a change in his or her daily life. Even a change of work gives us a certain amount of enjoyment and improves our health. Picking berries is hard work, but because we do not do very much of it we look on the whole thing as a holiday. A man who worked in an office would likely enjoy taking in the hay on the farm.

Everybody should have a change during the year. They will work all the better for it. This is true also of the older folks. There are some people who boast that they have not taken a holiday for ten or fifteen years. I do not think that is anything of which to be proud. They can't be as good natured or do as good work.

On the farm it is very hard for folks to take a holiday of any length, because the work never seems to get done. Some people think they will wait until they get it all done and then take a good holiday, but as a rule these folks never take one—because the work is never all done.

The only way to do is take a short holiday when the work is at a stage where it can be let go for a day or two. If several short holidays are taken during the slack spells everybody will feel much better when the busier times arrive.

See if you can't get father and mother to go away for such a short holiday this summer. This should be possible where there are older children. Your mother and dad perhaps think you can't get along without them, but perhaps you could for a day or two. Think how constantly they stay at home—especially mother. Day in, day out, they go through the same hard work and give you the same loving care. Mother likely needs a holiday but she won't take it unless you make her. Perhaps she hasn't been away over night for ten years. Now, if you can, you just make father and mother take the car and "buzz off" to Aunt Mary's or Uncle Bill's and pay them a good old fashioned visit. When they come back just watch the brightened, rested faces and you will feel well rewarded for the extra work.

So here's to good holidays for you and, I hope, some extra ones for your parents. Perhaps next month I'll have more time to write you, for I shall have some holidays then too.

Yours sincerely,

J. EGBERT McOUAT.

## Spray With Bordeaux Mixture To Control Late Blight of Potatoes

LATE Blight each year causes considerable loss to the potato grower. This disease kills the vines before the tubers are full grown. It also causes the tubers to rot both in the field and in storage. These losses can be avoided by spraying with Bordeaux mixture.

The results of experiments conducted by the Laboratory of Plant Pathology, Dominion Experimental Station, Ste. Anne de la Pocatiere, show that Bordeaux mixture, when well prepared and thoroughly applied, gives complete control of Late Blight during wet seasons, and that it is beneficial during dry seasons when there is no Late Blight. Bordeaux mixture helps the vines to remain green and healthy during dry weather. When it finally rains, the vines that are still green can continue to form tubers. A table of the results obtained in 1924 and 1925 is given below. The season of 1924 was wet, while 1925 was very dry.

	1924		1925	
Unsprayed plots	% Late Blight	Yield	% Late Blight	Yield
Sprayed plots	23	332 bus.	0	235 bus.
	0	392 "	0	258 "

In order to obtain good results from spraying, the Bordeaux mixture should be well prepared and thoroughly applied. Home-made Bordeaux mixture has so far proved the best. Prepare it by dissolving four pounds copper sulphate in 20 gallons of water, and four pounds of quick lime, or six pounds of hydrated lime, in 20 gallons of water. While stirring, pour the lime solution into the copper sulphate solution. Never mix together more concentrated solutions of copper sulphate and lime.

A good spraying outfit is necessary thoroughly to apply Bordeaux mixture. It must have a pump that will develop from 150 to 200 pounds pressure, and that will deliver the Bordeaux mixture in the form of a fine mist. It must also have three nozzles per row, one that will spray the top of the vines, and one on each side that will spray the underside of the leaves.

H. N. RACICOT,

Plant Pathologist, Dominion Experimental Station, Ste. Anne de la Pocatiere, P. Q.

## New Milk And Fat Record For French-Canadian Cattle

A new record for the French-Canadian breed has just been established for the three-year-old class, in the three-hundred and sixty-five day division. "JULIA DE CAP ROUGE" is the new Champion, with a production of 10,181 lbs. of milk and 490 lbs. of fat, with an average of 4.81%.

Dr. Gustave Langelier, Director of the Experimental Farm of Cap Rouge, is the breeder and owner of the new Champion. It is to be noted that "JULIA DE CAP ROUGE" has been milked only twice a day during her entire lactation period.

The former record was held by "MARJOLAINE" with a record of 9,002 lbs. of milk and 485 lbs. of fat, with an average percentage of fat of 5.39%. "MARJOLAINE" is bred and owned by Mr. Gilbert Chicoine, Clairvaux, Bagot County.

# Quebec Women's Institutes in Convention

Large Attendance and Full Programme Mark Thirteenth Annual Meeting.

THE thirteenth annual convention of the Quebec Women's Institutes opened on June 15, at Macdonald College. The Provincial President, Mrs. F. S. Lusk of Luskville, Que., presided at the first session.

The Address of Welcome was given by Dr. F. C. Harrison, Principal of Macdonald College.

Referring to the activities of the local societies, he considered that the interest shown in the schools was to be highly recommended, as healthy bodies and healthy minds make for efficient citizens. Medical inspection in rural schools is just as important as in city schools, and the result of such inspection may be of far-reaching importance to those pupils who might otherwise go through life with a tremendous handicap.

Dr. Harrison went on to say: "we are living in a wonderful age; the present speed at which we live was unthought of forty years ago. Another outstanding factor in our lives is that because of the numerous mechanical appliances in daily use, we are at one with the rest of the world.

"By means of the morning papers we learn of earthquakes, revolutions, strikes, in various parts of the world, and of dictatorships all over Europe. What is the influence of these things upon our lives? We should see that those who represent us are of the right type, that our representatives in the legislatures are statesmen rather than professional politicians."

The speaker said that he knew those in the country lead busy lives, and he thought it was a necessity that more pleasure should be brought into those lives. It was easy to get into a groove and difficult to get out of it. He advised the obtaining of new experiences by changing the daily routine. He thought that women in rural communities do not make enough leisure for themselves, that they do not set aside enough time for play,—that eight hours sleep, eight hours work and eight hours play was a good rule to follow. Play means some kind of recreation. He advised them to do something that gives a change of work with either the hand or the brain;—if the brain is active use it to obtain the necessary recreation; stir up some element of play, perhaps through the pleasures of outdoor life.

Dr. Harrison concluded by again extending a welcome to the delegates and an invitation to those interested in flowers to view his garden, which he would be glad to show to them.

In replying to this address Mrs. J. B. LeBaron, of North Hatley, said that all the delegates appreciated their stay at Macdonald College. Continuing she said that the Provincial Convention not only broadens one's view but gives an idea of what can be done when the representatives of the Quebec Women's Institutes meet together. Medical inspection had been tried out in her locality and it was found out that the more often the school was inspected the less opposition there was to it. The Institute does follow-up work, and helps to defray the expenses of those who otherwise could not afford such services.

#### President's Address

"The charm of this organization", said Mrs.

Lusk in her address, "lies in its broad outlook, but it also brings responsibilities. I think each Women's Institute should advertise itself by creating in its locality better homes and more efficient citizens. Until the boy and the girl on the farm can make as much money and enjoy as good living conditions as those in the city, contentment cannot be expected. Let us overlook things that cause dissension and emphasize those that cause good will. The measure of our love is the measure of our work".

#### The Year's Work

The report of Miss Florence M. Jarvis, Superintendent of Quebec Women's Institutes, showed that the year had been a very profitable one. Eight new branches had been organized, bringing the total for the province up to 80, with a membership of 1,866, being an increase of over 170 over the preceding year. The number of meetings held were 771, but the average attendance was low. Miss Jarvis thought that fact should be given serious consideration, as it is to a very large extent, the responsibility of the branch officers and members. Over \$12,000 was raised throughout the province; among those receiving cash contributions from the Institutes were the Children's Memorial Hospital and the General Hospital, both of Montreal, Wales Old Home, Richmond, Girls Friendly Home, Montreal, Salvation Army Hospital, also hospitals situated at Sherbrooke, Farnham, and the district of Bedford. Prizes of special merit were awarded to 48 schools, and four scholarships given on the condition that the student's work continues another year. Through the efforts of the W. I. five schools have had medical examination, and 21 branches served hot school lunches to the pupils.

The scholarship of fifty dollars (\$50) which is given to the student from rural Quebec coming first in her studies in the first year of Household Science at Macdonald College was won this year by Miss Mina Tweedie, of Choisy, Que.

#### Cercles de Fermières

Miss Marie Anna Lemieux, Inspector of the Cercles de Fermières, brought greetings from those societies. "Since we are working on the same ground and under the same motto of Home and Country, and are fighting for the same ideals, we should consider ourselves as good Canadian sisters."

Starting in 1915, the Cercles have grown to one hundred societies, with a total membership of 6,860.

In 1925 they held 815 general meetings with an average attendance of 65 per cent of the members. The value of the agricultural products grown and canned during the same year by the members amounted to \$78,475, ninety percent of which belonged to farm women. Each circle is governed by a board of seven members whose duties are to control the observance of the by-laws, to plan the work of the society and to manage its funds.

#### Federated Women's Institutes

Mrs. Beach, 2nd Vice-President of the F. W. I. C. attended the bi-annual convention of the Federated Women's Institutes held at Victoria, B. C., in 1925. In her report she said the Federal Convention de-

cidated to strengthen the relations with the Institutes in Great Britain, and leave the forming of an international organization to a later date. The main accomplishments for the two years 1924-1925 were the distribution of 10,000 copies of the W. I. handbook throughout Canada, the staging of the national institute exhibit at Toronto, and the affiliation with the Social Service Council. The by-laws and the constitution of the Federated Women's Institutes—were revised.

#### Individual Responsibility

In leading the discussion on the reports, Miss B. M. Philp, Head of the School of Household Science, said that she was very glad to note their activities in agriculture, and urged that they extend them by increasing the production of fruits and vegetables. A great deal is being done in the field of nutrition, and it is being proved that there is a grave danger of an insufficiency of vegetables and fruits in the diet.

It is a move in the right direction to work for the child of pre-school age. We know now it is not enough to teach the child when attending public school, because the foundations for good health (which make for good citizenship) are laid in the earliest years of the child's life.

Each woman should have a copy of the immigration policy and become acquainted with its contents. That policy should be a selective one. Our individual responsibility lies, first, in seeing that the men in our government who are concerned with immigration are wisely chosen for the task; and second, it lies in extending a kindly hand, and exercising a tolerant spirit to all New-Canadians, because everything here is so different from old world conditions.

#### Some Things Worth While in Rural Life

Dean H. Barton, Dean of the Faculty of Agriculture, Macdonald College, in addressing the convention said in part: "Your organization is one of which you may well be proud. I know something of its development from the time of its birth some 15 years ago, and I know enough of the difficulties with which rural organizations have to contend to appreciate what your record of success means. I have seen many evidences of your work, but to me one of the most impressive testimonials is the respect you command among farmers. I can see very clearly that the Women's Institute can reach a farmer where all other organizations may fail, and so I am most eager to be identified with you. Our cause is a common one, — a good country and a happy people.

"In amalgamating the people of the farm with the people of the town your organization is doing something unique. There is need for mutual good will and co-operation between these two sections of what, after all, is the same society. Such a relationship is possible only where people understand one another. The town people can and should do much for the farming people upon whom their existence depends, while the farming people should interest themselves in their own town whose services are indispensable to them.

"Some good work has been accomplished in the cause of rural betterment, but we are in the midst of changing situations, and much remains to be done. The important thing is to choose the things most worth while, and I want to indicate some of the things that to me seem fundamental. I have already touched upon one, the importance of common interest and joint effort between town and country.

"The rank and file of farmers would say that greater prosperity is the one fundamental thing. How are we going to get it? Some wait for it indefinitely, while others go after it and find it. General conditions have much to do with the prospects of all, but it is not reasonable to expect prosperity from conditions alone. Careful planning of production, and organized marketing are two important factors, under any conditions that are likely to prevail.

"There is plenty of ground for optimism and some for enthusiasm in Quebec rural life.

"If our interests are really sincere we must cultivate an appreciation of the possibilities. This is doubly important for our young people. For them, the farm needs more glorifying and less disparaging. By adding more beauty to our farms and towns we can stimulate interest and pride.



Delegates to the 1926 Convention of the Quebec Women's Institutes, held last month at Macdonald College.

"I believe a very serious stumbling block in the farm home is the shortage of domestic help, and I would like to suggest that this problem be carefully discussed, and no stone left unturned to find some solution.

"Finally, in the last analysis I believe more education for the farm boy is the crying need. He is not being fairly treated. Why should he be denied the advantages of other boys? Farming is becoming increasingly complex, and he needs some technical equipment. Farming is being drawn more and more into commercial intercourse, and if the farmer is to operate on anything like a common level with his associates, he must be given some of their educational opportunities."

#### *Aim of Home Economics*

The report of Mrs. G. H. Beach, Cowansville, Que., Provincial Convener of Home Economics, was very encouraging. She said that a fine definition of the aim of Home Economics is: "To develop every home into an institution which is economically sound, mechanically convenient, physically healthful, morally wholesome, mentally stimulating, spiritually inspiring, socially responsible, and a center of unselfish love."

During the year 60 branch meetings have been devoted to Home Economics, six counties have distributed bulletins and literature on this subject, eight branches have made a study of "Foods", and there have been 20 demonstrations in cooking and sewing.

Mrs. Beach advocated that papers be prepared, emphasizing the benefit of using labour saving devices, also the ways and means of getting water systems in the farm home.

#### *Franchise in Quebec*

Miss Ella J. Bryson, of Fort Coulonge, Que., Provincial Convener of Legislation, in her report said that one meeting in the year should be devoted to the study of laws affecting women and children, and that more interest might be taken in Parliamentary procedure. Government publications, such as "The Legal Status of Women in Canada", could be profitably studied by the members of the various Institutes. It was also suggested that each candidate for the local legislature be asked to support the motion that women be considered eligible for the office of school trustee in this province.

One institute had a lawyer give an address on, "The Status of Women in Quebec in Civil and Political Life", another society had a paper prepared by a Federal member on, "How We Are Governed", while a number of branches gave special attention to Legislation, and to correct Parliamentary procedure.

#### *National Events*

The convener, Mrs. Campbell McOuat, Cowansville, reported that the chief aim of the committee on National Events is to awaken a National Consciousness in the minds of Institute Members, and also to foster a pride in the achievements of Canada and of Canadians in the minds of the school children.

Mrs. McOuat finds that the best progress is made in those counties that are fully organized, and that where the link between provincial and county conveners is broken, the work cannot be carried on satisfactorily.

Excellent work has been done by this committee. That with schools included the awarding of prizes for the best essays on Canada, seeing that Empire Day was properly observed, roll calls of: "Historical places in Quebec", "Important dates in Canadian history", "A patriotic Thought", "A Canadian view", presenting flags, and Canadian Magazines to schools, and placing of wreaths upon the Soldiers' Memorial.

#### *England's Women's Institutes*

In speaking of the Institutes of England, Mrs. Jean Muldrew, Director of the Home Service Department of Immigration and Colonization, said that it was very early realized that among the great number of gifts that the members possessed, many of these could be turned to good account in the making of things for private sales, a percentage of the returns from such sales to be given to the Institutes, but the rest to increase the income of the maker. Much progress was made, and a great deal of skill in handwork was developed. This development, while it has meant a great deal to those who thus turn to economic advantage their talents for handiwork, is really the least of all the benefits which this organization has bestowed upon its members. It has changed the entire outlook on life to many, has created a new interest, and has

been one of the greatest educational factors in rural life.

A specific instance was given of the social value of the institutes. A woman and her family had moved into a little country village, and until an institute was started five years later, she had not exchanged a word with a single person in the locality. "Now," she said, "I know everyone, and I am much happier, and I think it has taken me out of myself and made me healthier."

Mrs. Muldrew said that in nearly every institute she visited, the officers were experienced in conducting public meetings, and were keen upon correct procedure; and that it had much to commend it where the difference between good executive work and indifferent methods may mean the success or failure of the whole organization.

The original institutes of England were subsidised by a government grant. This was withdrawn after the war, but the institutes had such a hold upon the people that the situation was accepted, and now the institutes are quite independent.

There is a close bond of fellowship, and a great loyalty to their Central Committee. Of course, they have the county formations, but they are very closely interested in the election of the members of the Central Executive.

## Annabelle Amends

(By Bertha Price)

"ANNABELLE can talk of nothing but her babies and her housework!" exclaimed Belinda, as she accompanied Cecile from the tea-room of the Institute community hall. Cecile remembered, incidentally, that Belinda's boundary of conversation was limited to the latest style in hair-cutting, and the prizes she won at bridge.

Annabelle was a capable, thrifty housewife, bound up in the daily round of housework and caring for babies. She had been a comely lass with bright eyes and wavy tresses, but now her hair was woefully neglected. Cecile sometimes wondered if husband, when glancing over his evening paper at the thrifty housewife and devoted mother, ever thought of the old days when it was a joy to caress those wavy tresses so fast growing into straggling locks.

Annabelle wore an apron and cap the greater part of the day, and she dusted and cleaned from dawn to dark. Sometimes an erstwhile wavy lock would squirm from beneath her cap. It was pushed back with damp or soiled fingers, then, when the day's work was completed, the tresses were hastily brushed; just given a lick and promise, twisted up in a hurry, and invariably a plain housedress was donned.

"I cannot take time to dress up," she would sigh, while regret tugged at her heartstrings, hoping she would remember the old days when she wore pretty frocks and prinked up a bit for husband-to-be.

Some days the housework, or the baby, would not allow time for even the plain dress, and a tired, disheveled woman faced a tired, dejected man at the supper table.

But Babs! She was like a big wax doll; sweet and clean and frilly—oh, so frilly! Dainty white dresses, lace-trimmed and fluted, found their way one after another in quick succession into the laundry basket, which, like some people, was always bulging with its own importance.

"I cannot bear to see Babs in those ugly rompers," Annabelle declared. "She is so much prettier in white, and I don't mind the washings at all."

Came a day when Cecile went to visit her old school chum and, after deep deliberation, she determined to speak her mind regarding Annabelle's slavery to a duty that had developed into a fad.

"That terrible ironing, Annabelle!" she argued. "And just think how cute Babs would look in a blue chambray with chicken pockets, or a brown holland with bunnies here and there! You are clever with your needle, and could easily do the embroidery or applique in the evening while chatting with Jim, or when you go for a neighborly call, instead of eternally ironing those frilly things." Cecile gave one of Babs' tucked flounces a vicious pull to emphasize her words, and gazed with unflinching eyes into the tired ones of Babs' mother.

Annabelle showed resentment at first, but Cecile was a tried and true friend, and she knew there was nothing but the best advice being offered her. She answered a little sadly: "I know I don't get time to go out, nor to sit with Jim in the evenings as I ought."

They are up against problems which we cannot fully appreciate. The laws of England are very rigid, and are strictly enforced. If they wish to charge a fee to their whist drives, bazaars or other entertainments a very good sized entertainment tax must be paid, and, moreover, their sales must not encroach too much upon established industries.

The Central Office has a list of instructors from which to choose, but no free instructors are sent out such as the Government of this province sends to the Institutes.

The speaker thought it would be a good idea to have a Canadian Committee to keep the English women members of Parliament conversant with the social laws of this country. They are very keen on knowing, but are too busy to dig it up from the great mass of material that must continually confront them.

In England the social aspect of the Institute gives a new vision to the rural women, but its influence ends there. In Canada this cannot happen. Men who are free holders of their own property are very closely aided and encouraged by their wives, who are really co-partners in the enterprise. It has been said that the greatest impetus Agriculture in this province ever received was from the quickening vitality breathed into it by the formation of the great rural organization — Women's Institutes.

"That's the point, dearie," Cecile answered briskly, but kindly. "You've been giving too much of yourself to your housework and not enough to your dear ones."

Annabelle made no reply, but her eyes were thoughtful as she caressed the curly head of the child that rested in her arms.

"Then, Annabelle," continued Cecile, growing bolder, "you must not allow yourself to get run-down-at-the-heels; it's not fair to Jim, nor to Babs, nor—to me."

A few months later Cecile came down for a week-end visit and she learned that Annabelle had been giving time to her music; had just finished reading one of the new books, which had been read aloud to Jim, and her hair looked as if it had but recently emerged from an intimate interview with the curling tongs and mirror.

Babs was sitting a stride a kiddie-car, and looked pretty enough to hug, in a dainty gingham gown. And Jim had a new light in his eyes.

Cecile was decorously reticent regarding the change in the home she loved to visit, until she retired to her room. Then, looking at herself in the mirror, she said:

"Well, Cilla, old girl, I guess your missionary seed dropped on fertile ground, and I can see that you will be busy from now on keeping up with Annabelle in looking young and happy."

### A Smile or Two

SOLD AGAIN

"Are you sure," asked the old woman, "that this century plant will bloom in 100 years?"

"Positive ma'am," answered the florist. "If it doesn't, bring it back and your money will be returned."—Good Hardware.

Mistress: I told them 7 o'clock for dinner, Mary, but I think we'll give them a quarter of an hour's grace.

The Maid: Well, mum, I'm as fond of religion as any one, but I call that overdoin' it.—The Progressive Grocer.

Husband (shopping with wife)—"If the goods you were just looking at suit you, why try other places? Why don't you buy them and let us go home?"

Wife—"How foolish you talk! Why, I'm not half tired out yet."

SAMMY NOT STUCK

"Now, Sammie, you may give us a sentence containing the word 'income'."

"This morning pa left the cow-lot gate open, and income the bull."—Whiz Bang.

"I don't think much of a man who is not wiser today than he was yesterday."—Abraham Lincoln.

## Report of Quebec Women's Institutes

## ARGENTEUIL COUNTY

*Argenteuil W. I.* was favoured with a visit from a returned missionary who gave an interesting address on her work in China. The talk was accompanied by curios from the same land. *Jerusalem-Bethany W. I.* is planning to drill a well for the purpose of having a supply of pure water for the school. *Lakefield Institute* enrolled one new member, made final arrangements for their contribution to the C. N. E., arranged the programme for the coming year and are planning to give a concert. *Upper Lachute W. I.* enrolled two new members. An interesting address was given on "Education and Better Schools". This branch is installing a water system in one of their schools, and providing a covered water container for the other. *Chatham Institute* was organized May 3rd with twenty members. This branch is making extensive plans for future W. I. work.

## BONAVENTURE COUNTY

*Cross Point W. I.* always has good work to report. They are sending a box of clothing to Redemption Home, working for a bazaar, arranging to hold a parlor concert, and intend purchasing a piano for the hall. *Port Daniels Institute* is making plans for a busy year. This branch will make an extensive exhibit at the fall Fair. Literature from the Department of Agriculture at Ottawa has been distributed.

## BROME COUNTY

*Abercorn Institute* is providing bed linen for a family who lost their home by fire. They are also assisting in improving the school grounds. Papers were read on "Resources of Canada" and "Canadian Literature". Three new members were enrolled. *Foster W. I.* is arranging to give a play. A paper entitled "Pioneers of Early Days" was read. The Institute library is to contain second hand text books which will be sold at a reduction for the benefit of young students. *South Bolton Institute* had a paper on Agriculture and gardening, also enrolled one new member. *Sutton Juniors* had their books audited at the last meeting, and also enrolled one new member. *Highwater and McNeil's Crossing Institutes* — no reports.

## CHATEAUGUAY AND HUNTINGDON COUNTIES

*Aubrey-Riverfield Branch.* This was a well attended meeting, there being present eighteen members, two visitors and four babies. A paper was read on "The Beauty and Wealth of Our Province". Two crates of eggs are being sent to the Salvation Army Hospital. *Howick W. I.* had papers on the following subjects—"Luther Burbank" "The Secret of Getting Along with People" and "Diets Suitable for Different Ages and Occupations". A demonstration on "Graining Wood Work" was given by a member. The roll call was responded to with "favourite flowers". Letters acknowledging donations were read from Friendly Home and General Hospital, Montreal. Delegates were appointed to Annual Convention. *Dundee Branch* is donating bed linen and towels to the Sweetsburg Industrial School. *Hemmingford W. I.* reports an increasing interest and activity on the part of members. Addresses were given on the following topics: "Nourishing Dishes for the Invalid", "Planting The Family Garden", and a report of the County Convention. *Huntingdon W. I.* enjoyed a visit from Miss Helen G. Campbell of Ottawa when she spoke on the "Value of Milk". *Franklin Centre W. I.*—no report.

## COMPTON COUNTY

*Brookbury W. I.* sent letter of sympathy and flowers to a bereaved family, and arranged a shower for anew institute baby. *Canterbury branch* at the last meeting outlined the year's programme, and chose a delegate for the convention. Five dollars was donated to the Girl's Industrial School. *Sweetsburg, Bury, Canterbury Juniors, Cookshire, East Clifton and Sawyerville branches* — no report.

*Drummond and Richmond Counties* — no reports.

## MEGANTIC COUNTY

*Crawfordville W. I.* is purchasing books suitable for reading at the meetings. They are making arrangements for the school fair, and seeds are being distributed to the children. Papers were read on "Education" "Agriculture in Quebec" and "Care of Mattresses and Bedding". *Inverness Institute* arranged a programme for the coming year, and had a paper on "Dairying and Buttermaking". *Lemesurier Branch* discussed plans for school fair and appointed a delegate to Convention, arranged the year's programme, and made plans for a social evening.

## MISSISQUOI COUNTY

*Cowansville W. I.*—no report. *Dunham W. I.* appointed a delegate to the Annual Convention, discussed School Fair arrangements and appointed a program committee. This branch has given \$10 to the Industrial School at Sweetsburg. *Noyan Branch* enjoyed a demonstration on Dressmaking by Miss Adams. One new member, was enrolled. *Stanbridge East W. I.*—no report.

*Ottawa County* — no reports.

## PONTIAC COUNTY

*Ft. Coulonge Institute* has started a suggestion box as a means of creating interest among the members. We hope they will explain their method for the benefit of others. The roll call was answered with the name of "My favourite Spring Flower". *Stark's Corners W. I.* A letter was read on "Tubercular Prevention". This branch is giving attention to this very important subject. *Wyman Institute* is agitating the question of simple refreshments at their meetings. "How We Are Governed" is a subject suggested for study. This branch plans to assist the Shawville Institute in maintaining a rest room. *Beechgrove, Bristol, Calrendon, Elmside, Murrells, Portage de Fort, Shawville and Shawville Juniors*—no reports.

## SHEFFORD COUNTY

*Granby Hill W. I.* answered the roll call by exchange of slips and house plants. Twenty-five dollars was donated to purchase a first aid kit for the school. Few new members joined. *South Roxton*

## Queen Anne's Lace

By Ida M. Thomas

Queen Anne was about to wed,  
And o'er the countryside was spread  
Word that her trousseau was complete  
From crowned head to sandalled feet,  
Except the veil; for this she sought  
Some special pattern to be wrought  
Into its folds. And so, one day,  
She sent out messengers to say  
That she would give a handsome prize  
To that one who should, in her eyes,  
Produce the most unique design  
To make this bridal raiment fine.  
And then her subjects, through the land,  
At making patterns, took a hand;  
Fine silks and threads and laces bought  
And with great pains their work was fraught.

At last a day was set apart  
To look upon these works of art.  
They made a wonderful array,  
But—passing strange—amongst them lay  
A spray of flowers, fragile, fine,  
Placed there to serve as a design,  
By one who had no gold to buy  
The silks and lace that she might try  
Her skill, so over hill and dale,  
She sought and found this flower frail.

And when the queen, in all her power,  
Had viewed each one, she chose the flower,  
And said, "This blossom ends my quest;  
'Tis the design I like the best."  
And from that day, in every place,  
The flower's been called: "Queen Anne's Lace."  
(From "Modern Priscilla")

*W. I.* enrolled three new members. A delegate to Convention was appointed at this meeting. Arrangements were made to hold a lawn supper. Readings by members were entitled "Three Kinds of Members" and "Just Neighbouring".

## SHERBROOKE COUNTY

*Ascot W. I.* enrolled one new member. An address on "Home Nursing" was much enjoyed. Report of county annual meeting was given and several committees named. *Belvidere Institute* assisted the needy, and arranged for the distribution of school prizes. *Brompton Road W. I.* had an interesting paper on "Education and Better Schools". They are making garments for the needy, and arranging that the school garden be cared for during vacation. *Lennoxville W. I.* An excellent paper on "Canadian Birds" was read. Ten dollars was voted to the Girl's Industrial School. A letter of sympathy and flowers was sent to a bereaved family. The members of this branch prepared lunch for those taking part in "Clean-up Day" work at the cemetery. They furnished plants for certain plots. A report of the annual county convention was given. *Orford W. I.*—This month's meeting was devoted to child welfare and music.

## STANSTEAD COUNTY

*Ayer's Cliff W. I.*—no report. *Beebe W. I.* enrolled two new members. Flowers were sold for Mothers' Day with a good profit which will be

used for charitable purposes. Report of County Annual Meeting was given and arrangements made for the county fair. *Beebe Juniors* — no report. *Hatley W. I.* Scope and history of Institute work was the subject of a paper given at the last meeting. Delegate to Convention was appointed. Report of county meeting was given and plans made for holding a sewing class in July. One new member joined. *North Hatley W. I.* meeting was postponed giving place to the county convention.

*Tomifobia W. I.*—no report. *Way's Mills Institute* sent flowers to their president who is ill in the hospital. A delegate was appointed to attend Convention.

## VAUDREUIL COUNTY

*Como, Hudson and Hudson Heights W. I.* enrolled two new members. A demonstration was given on making Devonshire Cream.

MRS. W. S. ARMITAGE,

Convenor, Publicity Committee,  
Quebec Women's Institutes.

## Egg Grading Brings Seven Cent Bonus to Guelph Farmers

FARMERS in the vicinity of Guelph, Ontario, who for over a year have been selling graded eggs on the public market of that city received, this spring, from four to seven cents a dozen more for their eggs than farmers selling on the markets of neighbouring cities where grading has not been practised so long nor so carefully. This additional profit resulting from grading is disclosed by a comparison of prices on the markets at Guelph, Waterloo and Kitchener for the five weeks from March 22nd to April 24th.

The grading of eggs has been applied rigidly on the Guelph market for over a year, the farmers' eggs being graded at a booth on the market. At Waterloo, although grading has been in effect for a much shorter time than at Guelph, fully ninety-eight per cent of the eggs sold on the market are classified and graded. At Kitchener, on the other hand, not alone has grading been in effect for only a short time, but the graded eggs have never constituted more than fifty per cent of the total quantity of eggs on the market. In view of these conditions the price comparisons on the different markets are extremely interesting.

Guelph farmers, with their market strengthened by a full year of thorough grading, received an average of three cents a dozen more for their eggs than the Waterloo farmers and seven cents a dozen more than the farmers in the vicinity of Kitchener. Similarly, farmers on the Waterloo market, who have been practising grading for but a few months, received an average of four cents per dozen more for their eggs than did the producers at Kitchener, where only fifty per cent of the eggs were graded.

Officers of the Dominion Live Stock Branch at Ottawa, in commenting on these prices, stated that they offered a very concrete example of the benefits of egg grading and that what has taken place at Guelph has been duplicated all across Canada when grading has been practised faithfully. Grading, with the sale of a dependable product, increases the demand for eggs and prices are kept up accordingly. That this has been true in a national way is shown by the fact that the consumption of eggs has increased by over ten dozen per capita in the last five years and that during this period prices have never been more uniform nor more generally profitable to producers.

## Feeding Ducklings

DUCKLINGS should not be given feed or water until they are thirty-six hours old. The proper way to feed them is described in a new bulletin of the Department of Agriculture on poultry feeds and feeding. According to this bulletin a good feed consists of stale bread soaked in milk and dried off with a mash composed of equal parts of bran, shorts and corn meal, and five per cent coarse sand. For the first few days the feed is kept before them all the time, but it is changed so as not to become stale. After two days they should be fed four or five times daily. Anything left should be cleaned up. The bread should be gradually reduced, and discontinued when the ducklings are ten days old. The same mash is continued with ten per cent of beef scrap added. After the first two days a little green food is added to the mash and gradually increased until it amounts to from 20 to 30 per cent of the mash when the ducklings are two weeks old. This ration should be continued for six or seven weeks.

## The Ormstown Show

(Continued from page 4)

Snow Chief; 4. E. C. Budge, on Thorncroft Star Emblem.

**Senior and Grand Champion Bull.**—Ulric Deschamps, on Major d' St. Sulpice.

**Junior Champion Bull.**—R. R. Ness, on Beauty's Master.

**Cow 5 yrs. and over, in milk. (8).**—1. W. W. Skinner, on Ellersie Jessie; 2. R. R. Ness, on Burnside Pauline 3rd.; 3. R. R. Ness, on Hillhurst White Rose; 4. Braeburn Farms, on Braeburn Floss; 5. J. W. Logan & Son, on Sunnyside Lilly 3rd.

**Cow, 4 yrs. in milk. (6).**—1. R. R. Ness, on Brunside Janevie; 2. W. W. Skinner, on Lady Grace of Kelso; 3. J. W. Logan & Son, on Sunnyside Rosy; 4. D. T. Ness, on Ravensdale Stella; 5. Braeburn Farms, on Braeburn Flo.

**Cow, 3 yrs. in milk. (8).**—1. J. H. Black, on Spittle's Myrtle 3rd. (imp.); 2. Braeburn Farms, on Braeburn Genevieve; 3. J. W. Logan, on Alta Crest Cloverbloom; 4. D. T. Ness, on Elgewood Miss Brownie; 5. J. W. Logan, on Avonside Bluebell.

**Cow, 2 yrs. or over, dry. (5).**—1. J. H. Black, on Netherton Sylvia; 2. W. W. Skinner, on Ridgehaugh Sprightly 2nd.; 3. J. W. Logan & Son, on Alderwood Mirlie; 4. D. T. Ness, on Eva Wood; 5. Braeburn Farms, on Braeburn Orange Blossom.

**Cow, 2 yrs. dry. (16).**—1. W. W. Skinner, on Bois de la Roche Marie 5th.; 2. E. C. Budge, on Thorncroft Trinket; 3. J. W. Logan, on Marbrae Buelah; 4. E. C. Budge, on Thorncroft Connie; 5. R. R. Ness, on Brunside Miss Chink.

**Heifers, senior yearling. (8).**—1. R. R. Ness, on Honeyholm Lady Jean; 2. E. C. Budge, on Thorncroft Hyacinth; 3. W. W. Skinner, on Bois de la Roche Helena 4th.; 4. R. R. Ness, on Burnside Miss Canada; 5. P. Dickson, on Balsam Lodge Lady Blossom.

**Heifers, junior yearling. (13).**—1. R. R. Ness, on Burnside Bright Spot; 2. J. W. Logan, on Sunny Spring Olive; 3. R. R. Ness, on Burnside Excelsiors Pearlina; 4. Braeburn Farm, on Braeburn Temu; 5. Braeburn Farm, on Braeburn Rose.

### Heifer Calves.

**Seniors.**—1. J. H. Black, 2. R. R. Ness, 3. D. T. Ness, 4. W. W. Skinner, 5. W. W. Skinner.

**Juniors.**—1. J. H. Black; 2. Clark Estate; 3. W. W. Skinner; 4. Jas. West; 5. J. W. Logan & Son.

**Cow with R. O. P. record made at 5 yrs. or over. (2).**—1. R. R. Ness, on Burnside Pearlina 3rd. 365 day record of 15,368 lbs. milk; 663 lbs. fat;

2. R. R. Ness, on Hillhurst White Rose, 305 day record of 9,661 lbs. milk; 372 lbs. fat;

**Cow with R. O. P. record made under 5 yrs. (7).**—1. R. R. Ness, on Burnside Blossom Andrietta, 4 yrs. old record 305 day, 13,010 lbs. milk; 577 lbs. fat; 2. E. C. Budge, on Thorncroft Merry Miss, 2 yr. old record 305 day, 10,598 lbs. milk; 451 lbs. fat;

3. R. R. Ness, on Burnside Janevie, 3 yr. old record 365 day, 9,106 lbs. milk; 406 lbs. fat;

4. Braeburn Farm, on Braeburn Orange Blossom, 2 yr. old record 365 day, 9,626 lbs. milk; 343 lbs. fat;

### Senior and Grand Champion Cow.

R. R. Ness, on Burnside Blossom Andrietta.

Reserve senior champion.

W. W. Skinner, on Ellersie Jessie.

### Junior Champion cow.

R. R. Ness, on Honeyholm Lady Jean.

### Reserve Junior Champion.

J. H. Clark, on Willowhaugh Easy First.

### Dairy Herd 4 females in Milk.

1. R. R. Ness; 2. Braeburn Farm; 3. J. W. Logan & Son; 4. D. T. Ness.

**Calf Herd 4 calves bred and owned by exhibitor.**

1. W. W. Skinner; 2. Braeburn Farm; 3. R. R. Ness; 4. J. W. Logan & Son.

### Graded Herd.

1. R. R. Ness; 2. W. W. Skinner; 3. J. H. Black; 4. Braeburn Farm.

**Young Herd Females bred and owned by exhibitor.**

1. R. R. Ness; 2. E. C. Budge; 3. D. T. Ness; 4. Braeburn Farm; 5. J. W. Logan.

### Get of Sire.

1. R. R. Ness, on Hobslands Victory; 2. Braeburn Farm, on Burnside Fanne's Senior; 3. W. W. Skinner; 4. E. C. Budge; 5. J. W. Logan & Son.

### Produce of Dam.

1. W. W. Skinner, on Bois de la Roche Marie Rose 4th; 2. R. R. Ness, on Burnside Drumsue Primrose; 3. Braeburn Farm; 4. P. Dickson; 5. Braeburn Farm.

## HOLSTEIN AWARDS

Breeders showing Holsteins were as follows; Chas. Collum & Son, Ormstown; H. T. Cunningham, Huntingdon; Robt. Dickson, St. Louis de Gonzague; Lorne Elliott, Ormstown; P. Elder, Glenelm; W. H. Goodfellow, Huntingdon; Helm Bros., Huntingdon; J. W. Innes, Woodstock, Ont.; W. Kelly, Huntingdon; Jas. Murphy, Huntingdon; Mount Victoria Stock Farms, Hudson Heights; Raymondale Farms, Vaudreuil; Neil Sangster, Ormstown; H. S. Tannahill, Huntingdon.

The showing of Holsteins was one of excellence throughout. The herds of Mount Victoria Farms and of Raymondale Farm were in close competition from the start. One of the outstanding classes of the show was the Aged Dry Cow Class. There were twelve entries lined up before the judge, and it was some time before Mr. Rettie got them placed to his satisfaction. The class was won by Mt. Victoria Farms on Hilton Pearl Plus. Mr. Macaulay's cow also stood 4th. with Raymondale cows in 2nd and 3rd places. The result of this class was particularly pleasing to Mr. Chandler, Manager of Mt. Victoria Farms because of the standing of the cow in 4th place. This cow was bought 'in the rough' and has rounded out into a show cow through proper care and feeding. It is an example which substantiates the old saying that the real judge is the man who can pick the good ones when they are in their everyday clothes.

Mount Victoria Farms also took the Championship Bull prize on their \$15,000 Johanna Rag Apple Pabst. For a bull of his size, he is exceptionally smooth and well turned. His ability as a sire in the Mt. Victoria herd as yet cannot be judged, though next year should bring some of his get to the fair.

## HOLSTEINS

**Aged Bull.**—1. Mount Victoria Farms, on Johanna Rag Apple Pabst; 2. Raymondale Farms, on Brookholm Inka; 3. P. M. Elder, on Perfection Rosch Lad; 4. H. S. Tannahill, on Sir Clyde Alcartra.

**Bull 2 yrs.**—1. J. W. Innes, on Abberkirk Sylvius Lad; 2. Raymondale Farms, on Abegweit Silver Chieftan; 3. W. Kelly, on Duplicate DeKol Prince; 4. H. T. Cunningham, on Pioneer Gift Ormsby.

**Bull Junior Yearling (7).**—1. Helm Bros., on Sir Romeo Ormsby Alcartra; 2. H. S. Tannahill; 3. W. H. Goodfellow, on Oaklea Perfection Pontiac; 4. Neil Sangster, on Millbrook Best Forbes; on Count Alcartra Korndyke.

## Bull Calves.

**Senior. (8).**—1. J. W. Innes; 2. Mount Victoria; 3. J. W. Innes; 4. Neil Sangster; 5. H. T. Cunningham.

**Junior (4).**—1. H. T. Cunningham; 2. Raymondale Farms; 3. J. W. Innes; 4. J. W. Innes.

## Sr. & Grand Champion Bull.

Mount Victoria Farms, on Johanna Rag Apple Pabst.

## Jr. Champion Bull.

H. T. Cunningham, on Butternut Sir Echo Posh Ormsby.

**Cow 5 yrs. or over in milk. (9).**—1. Raymondale Farms, on Countess Abberkirk Hiemka; 2. Mt. Victoria Farms, on Oakhurst Colantha Abberkirk; 3. Raymondale Farms, on Lowlands Butter Jewel; 4. H. T. Cunningham, on Maple Ave. Butter Girl; on Daisy Evertje Alcartra; 6. H. T. Cunningham, on Butternut Alcartra Sue.

**Cow 4 yrs. in milk (6).**—1. Mt. Victoria Farms, on Ingleside Pietje Posh; 2. Raymondale Farms, on Jewel Echo Korndyke; 3. J. W. Innes, on Laura Lee Alcartra; 4. H. S. Tannahill, on Echo Princess Liz; 5. H. T. Cunningham, on Butternut Echo Lady Posh; 6. Helm Bros., on Topsy Rauward Pietje.

**Cow, 3 yrs. in milk. (7).**—1. J. W. Innes, on Alcartra Colantha Ormsby; 2. Mt. Victoria Farms, on Lady Meg Posh; 3. Raymondale Farms, on Thornwood Nannie Dewdrop; 4. H. S. Tannahill, on Jennie Echo DeKol; 5. Helm Bros., on Peggy Korndyke Dot; 6. H. T. Cunningham, on Butternut Echo Pride Posh.

**Helper 2 yrs. in milk.**—1. Mt. Victoria Farms, on Countess Amelia Posh; 2. J. W. Innes, on Belle Dina Johanna Spafford; 3. Helm Bros., on Rhoda Queen May; 4. H. T. Cunningham, on Butternut Lily Ideal Pride; 5. H. S. Tannahill, on Echo Anna Pontiac.

**Cow 3 yrs. or over dry. (12).**—1. Mt. Victoria Farms, on Hilton Pearl Plus; 2. Raymondale Farms, on Aggie Abberkirk; 3. Raymondale Farms, on Abegweit Maid Abberkirk; 4. Mt. Victoria Farms, on Edith Cavell Heartog; 5. H. S. Tannahill, on Lady Echo Korndyke; 6. Helm Bros., on Rosie DeKol Alcartra.

**Cow, 2 yrs. dry. (9).**—1. H. T. Cunningham, on Butternut Alcartra Sue Pride; 2. Raymondale Farms, on Leta Segis Korndyke; 3. Raymondale Farms, on Raymondale Fobes; 4. Neil Sangster, on Inez of Pleasant Valley; 5. H. S. Tannahill, on Echo Anna Pontiac; 6. Neil Sangster, on Barbara of Pleasant Valley.

**Heifers Sr. Yearling. (7).**—1. Raymondale Farms, on Raymondale Plura; 2. H. T. Cunningham, on Butternut Echo Pride; 3. J. W. Innes, on Aggie Sylvia 3rd.; 4. Chas. Collum & Son, on Indulge Spafford; 5. Helm Bros., on Ideline Norwood Beauty 2nd.; 6. H. S. Tannahill.

**Heifers, Jr. Yearling. (9).**—1. Raymondale Farms, on Calamity Burk Dorliska; 2. J. W. Innes, on C. V. Alcartra Tortella; 3. Mt. Victoria Farms, on Montvic Artis Pontiac; 4. J. W. Innes; 5. Helm Bros., on Ideal Rauward Champion; 6. Mt. Victoria Farms, on Montvic Netherland.

## Heifer Calves.

**Senior (12).**—1. Raymondale Farms; 2. Chas. Collum & Son; 3. J. W. Innes; 4. Raymondale Farms; 5. Mt. Victoria Farms.

**Junior.**—Raymondale Farms; 2. J. W. Innes; 3. J. W. Innes; 4. H. T. Cunningham; 5. Jas. Murphy.

**Cows with R. O. P. record made over 5 yrs. of age.**—1. Raymondale Farms, on Countess Abberkirk Hiemka; 2. Mt. Victoria Farms, on Oakhurst Colantha Abberkirk; 3. Mt. Victoria Farms.

**Cow with R. O. P. record made under 5 yrs. of age.**—1. Mt. Victoria Farms, on Ingleside Pietje Posh; 2. J. W. Innes, on Alcartra Colantha Ormsby; 3. Raymondale Farms, on Abegweit Maid Abberkirk.

## Senior and Grand Champion Cow.

Raymondale Farm, on Countess Abberkirk Hiemka;

## Junior Champion Cow.

Raymondale Farm, on Calamity Burk Dorliska.

## Dairy Herd 4 females in milk.

1. Mt. Victoria Farms; 2. Raymondale Farms; 3. J. W. Innes; 4. H. T. Cunningham.

## Graded Herd.

1. Mt. Victoria Farms; 2. Raymondale Farms; 3. J. W. Innes; 3. Helm Bros.; 5. H. T. Cunningham; 6. H. S. Tannahill.

## Young Herd.

1. J. W. Innes; 2. H. T. Cunningham; 3. Helm Bros.

## Calf Herd.

1. Raymondale Farms; 2. H. T. Cunningham; 3. J. W. Innes; 4. Helm Bros.

**Get Of Sire.**—1. J. W. Innes, on Riverside Korndyke Toitilla; 2. Helm Bros., on Sir Lora Raymondale; 3. Raymondale; 4. H. T. Cunningham; 5. Mt. Victoria Farms; 6. H. S. Tannahill.

There were three breeders exhibiting Jerseys, Garnet Kerr of Campbellford Ont., taking the bulk of the prize money. His winnings included the following; Aged bull; 2 yr. old bull; Sr. bull calf; Jr. bull calf; and second on Jr. yearling bull. His bull was also made Champion bull. Lorne Elliott took first in the Sr. yearling bull class and H. J. Snaden 1st in the Jr. yearlings. Mr. Snaden also captured the Champion female ribbon.

In the beef cattle sections Shorthorns were best represented. Two herds were out, that of Hugh Carson, Ottawa, Ontario, and that of R. C. Johnson, Danville, Quebec. Where these came into competition Carson entries were usually placed at the top, he having carried off first place for graded herd and special for best Shorthorn female. In Herefords and Polled Angus A. R. Olney, Danville, Quebec, was the only exhibitor.

In swine George Hooker, Ormstown, Quebec, was probably the outstanding exhibitor. Besides carrying off a majority of firsts in the Yorkshire and Tamworth sections, he had first and second pens in the Government Special for bacon hogs any breed, and the special for best pen of hogs of any age or breed. Other exhibitors in these breeds were E. Sylvestre, St. Hyacinthe; H. Charpentier, Clairvaux de Bagot; W. Beauregard St. Damase; J. D. Bryson, Allen's Corners (Tamworths) and William Clark Estate, Shawbridge (Yorkshires). In Berkshires Sylvestre, Charpentier, Robert Elliott, Brysonville, and G. H. Mark & Son, Little Britain, Ontario, made up the list of exhibitors. And Chester Whites James Hunter, and Theodore Reid, Ormstown were the only exhibitors.

In sheep, most of the prizes went to Ontario breeders. A. Ayre, Hampton, Ont., winning the Government Special for best group of three shearling ewes born in 1925.

## What Feed Shall I Buy

(Continued from page 5)

The second way in which the tag analysis may be used to help in determining the feeding value of an unknown product or mixture is by matching as closely as possible the analysis figures given with those of a known

feedstuff, and applying the feeding value of the known feed to that of the unknown. High protein feeds in particular are so judged, though the scheme is applicable to all feeds. Following are the analysis of four commercial feeds which are on the market in one of the United States:

	Protein	Fat	Fiber
No. 1.	12%	2 %	25%
No. 2.	10	2.5	12
No. 3.	20	4	12
No. 4.	20	4	10

In No. 1 we have a product carrying the protein of oats, but over twice the fiber. It is obviously a cheap mixture. No. 2 is about as close to oats as any common feed, and would probably have a similar feeding value, though it is doubtful if it would have the same beneficial physical properties. As a high protein feed No. 3 would be less desirable than No. 4 because of the difference in fiber content. In all probability No. 4 would be more digestible than No. 3. Either would be suitable for dairy cows if fed with mixed hay.

**COST OF THE NUTRITION**

Having estimated as closely as possible the feeding value of a certain feed, the question arises, 'How much is it worth?' In general, feeds testing less than 12 per cent protein may be compared in price to the cost of that grain which they most nearly match. They should never cost more, and should usually sell for somewhat less per ton. For example, hominy feed should sell for less than shelled corn or else one should buy the corn.

Feeds bought for their protein content should be purchased on the basis of the cost per pound of protein. To calculate the cost per pound of protein in a feed it is but necessary to divide the cost per ton of the feed by the per cent of protein in the feed by 2000. This calculation for a few cases is worked out and presented in tabular form below:

Cost per Pound of Protein for Feeds of Varying Prices Per Ton,

Per Cent Protein in Feed	\$25 T. or \$1.25 cwt.	\$30 T. or \$1.50 cwt.	\$35 T. or \$1.75 cwt.	\$40 T. or \$2.00 cwt.	\$45 T. or \$2.25 cwt.	\$50 T. or \$2.50 cwt.
16	7.8c	9.3c	11.0c	12.5c	14.0c	15.6c
18	6.9	8.3	9.7	11.1	12.5	13.4
20	6.3	7.5	8.8	10.0	11.2	12.5
22	5.7	6.8	7.9	9.1	10.2	11.4
24	5.2	6.3	7.3	8.3	9.3	10.4
26	4.8	5.8	6.7	7.7	8.7	9.6

**HOW MUCH FEED MUST I BUY?**

Not only must one know the values of individual feeds, but he must give attention to the amounts of them used in the ration in order to get the most out of them. Supplying too much protein is not economical any more than is the opposite practice. The per cent of protein which must be contained in a purchased feed to give a certain protein content in a mixture, according to the proportion of home grown feeds (ave. 12 per cent protein) and commercial feeds to be used, is given in Table II.

From Table II we find that if we need a mixture containing 20 per cent of protein and we have enough of home grown feed to supply six parts out of ten of the total required, then we must buy a feed carrying 32 per cent protein, and mix it in the proportion of four parts to every six parts of the home grown product. This determined, it is then our job to locate the best buy among the 32 per cent feeds available.

**Protecting Farm Property Against Lightning**

out points. The points are therefore an essential part of the rodding system. *Insurance Companies Have Proof of Rods' Value.*

It is difficult to get conclusive evidence as to the value of lightning rods from observation or from investigation of farm fires. There are a great many buildings which still have on them the remnants of the bogus rods of some ten and fifteen years ago. These rods consisted of strips of very thin tin or copper formed into a tube and then twisted so as to give it the appearance of strength, and in the inside of the tube there were two small ribbons of iron. Some of these rods have been found rusted off within three years after they were installed. To claim that lightning rods have no value because a barn was struck which had these on it is the height of folly. For some years past the insurance companies of Ontario have been recording the evidence concerning lightning rods, and this evidence is so strong that it no longer leaves any doubt as to their value. The following table is taken from a recent publication by Mr. Geo. F. Lewis, Deputy Fire Marshall of Ontario, and proves that lightning rods do save buildings from lightning.

**LIGHTNING LOSSES FOR SIX SUBSEQUENT YEARS**

	No. of Fires	Total Loss	Insurance Loss	Loss Not Covered by Insurance
1920 Unrodded	876	\$672,592	\$409,163	\$263,429
" Rodded	3	4,843	4,843	.....

1921 Unrodded	1267	899,963	682,318	217,618
" Rodded	5	4,089	2,714	1,348
1922 Unrodded	1004	770,705	627,647	143,058
" Rodded	8	13,295	10,046	3,231
1923 Unrodded	923	1,267,597	1,163,593	104,004
" Rodded	10	30,534	7,004	23,530
1924 Unrodded	587	387,075	276,436	110,639
" Rodded	6	95	95	.....
1925 Unrodded	1013	661,499	472,930	188,519
" Rodded	19	33,306	23,171	10,135

The figures in the above table speak for themselves. Though it is true that some rodded buildings were struck, it is not by any means certain that these were properly installed, or that the rods were in good condition.

A study had been made of the lightning losses in Ontario for the year 1919 by Mr. Lewis, and the following extracts are indicative of the losses caused by lightning as well as the efficiency of proper rodding. "During the year there were 415 fires caused by lightning in barns and other farm building on Ontario Farms, with a total loss on buildings, implements, and produce of the soil of \$401,711, the loss on buildings amounting to 248,390 and on contents \$153,321. The insurance loss was \$223,144, and the farmers suffered a direct loss of \$168,567 not covered by insurance, besides an indirect loss of many thousands of dollars more..."

"These figures demonstrate that over 78 per cent of the lightning losses and more than 36 per cent of the total number of lightning fires occurred on the farms of the province. It is difficult to make the average person realize the unnecessary waste of these losses... I say unnecessary, for it has been proven beyond peradventure that good lightning rods properly installed are more than 99 per cent efficient".

An American insurance company in the state of Pennsylvania attacked the problem in a radical way some ten years ago. It bought 11,000 feet of copper cable lightning rod and installed it on the barns of a number of its patrons at its own expense. The rods

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**FREE**

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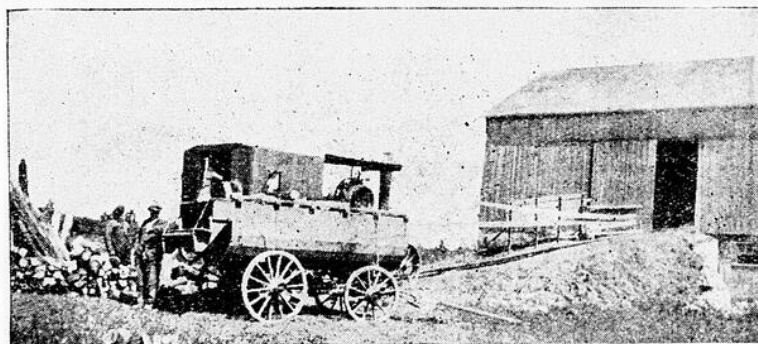
**MIKADO**

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**"JUST BOUGHT ANOTHER"**

"Our first Klingtite Belt was purchased from you about five years ago. This belt gave us such good service that we have since purchased Klingtite Belts for both our outfits. The first belt we purchased is still in good shape and grips the pulleys better than anything we have ever used. The best recommendation we can give you is the fact that we have just bought another Klingtite Belt for our other outfit." —Overholt Bros., Zurich, Ont.

The Goodyear Klingtite Belt saves time and money for every farmer who uses it. It is a powerful belt, built with an understanding of what a belt ought to be to do a good job on the farm. It holds the pulleys in a slipless grip. Works easily and freely in any weather. Puts an end to belt troubles and bother. Far outwears ordinary belts. Requires no dressing and needs no breaking-in.

Goodyear Belts are made in endless type for engine drives and in cut lengths for lighter drives. They are sold by Goodyear Farm Service Stations.

Goodyear means Good Wear



were erected according to the advice of the best authorities on the subject, and since their erection the company has not paid one cent of damage on these rodded buildings for a period of ten years.

#### What a Good Rod Consists Of

Copper is among the very best conductors of electricity of all the metals. It is almost twice as good a conductor as aluminum, the next best conductor of the cheaper metals, and six times as good as is iron. For this reason it is the best material for lightning rods.

After much careful study and many years of experience on the part of those who make this their business, the following standard has been laid down for the specifications of these rods: That they take the form of flexible cables of pure, soft drawn, copper wire, of either flat or round construction of the rope lay, loose twist, or braided types without a supporting core. The weight to be not less than three ounces per foot of length of cable, or 187.5 pounds per thousand feet of cable. Individual wires of the cable to be not less than number 17 B & S Gauge in size, or .045 inches in diameter. In structures over 60 feet high a rod weighing not less than 4 ounces per foot is advised.

#### Some Notes On Installation

The two most important things in connection with the installation of rods on a building are, first, a good ground connection, and, secondly, perfect electrical connections between the different wires or rods composing the system.

Good ground connections can be secured by carrying the conductor down to moist earth. This is not difficult in the average soil, where the proper conditions of moisture can usually be reached by putting the conductors down ten feet. Another good way of grounding the system is to connect the rods firmly to underground water pipes.

The soils of high resistance are those of a gravelly subsoil, dry sand, hard pan, light loam and shallow soil over rock. In these it is sometimes necessary to put a copper plate into the soil and to cover it with large flat stones,

which help to hold capillary moisture. Where it is difficult to obtain a good ground near the building, it is sometimes possible to attach the terminal to the casing of a drilled well or, when the well is of a shallow or dug type, to drop the conductor with a weight of stone into the water. The well should, however, be situated within 25 feet of the place where the conductor is dropped from the roof.

The earth resistance of the ground connections should not exceed 50 ohms.

So far as it is possible the system used on any one building should consist of one piece of conductor. Some joints are, however, necessary in all installations, and in these first class work should always be done. Such joints should be made by couplings which can be depended upon to maintain permanently efficient electrical contact, which can usually be secured by riveting or soldering or both. The rods should be attached directly to the building, and copper nails only should be used for this purpose. Sharp bends or turns should be avoided in carrying the conductor around eaves or cornices

of roofs and other parts of buildings.

All points in the system should be coupled to the main conductor as that current to be carried has two paths available to ground, and on gable roofs there should be a point for at least every twenty-five feet of the length of the ridge. All projections, such as chimneys, dormers, or gables, should have the protection of a point, which should be carefully connected into the main conductor system. All steel equipment in barns, such as the hay track, litter carrier tracks, milking machine air piping, water piping, and heavy iron machinery, should be connected into the lightning rod system by means of grounding cable, which the manufacturer of rods can supply. In some cases these cables need not be as heavy as the outside conductor.

Each structure should have at least two ground terminals. When the buildings are over fifty feet in any dimension more ground terminals should be provided. In buildings of irregular plan having many gables or roof projections, more ground terminals are necessary than on rectangular build-

ings. The points from chimneys should be joined to the main system of rods, but in many cases, such as that illustrated, another terminal should be provided for it.

Roofs covered with sheet iron or the corrugated sheets or shingles are usually said to be "lightning proof", but this can only be claimed when the roof is equipped with a proper system of points and if the roof is grounded by rods run to moist earth from at least four corners. The points need not be connected by conductors but must have good electrical connection with the metal roofing. If metal siding is used on the building this must also be grounded.

Typical rodding plans are shown in the illustrations.

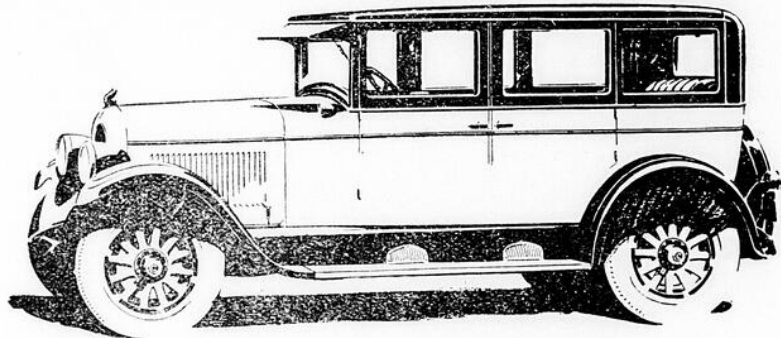
#### Egg-Colour Governed by Selection

FROM experiments conducted at Lethbridge, Alta., Dominion Experimental Station it would appear that the egg colour in poultry

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F. O. B. Windsor, Ontario (freight only to be added). The above prices include all taxes, bumpers front and rear, spare tire, tire cover, and tank full of gasoline

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### The Greenshields Analysis

In response to numerous requests we have just published the 10th Edition of our Analysis of Canadian Stocks—revised to June, 1926.

Giving 14 important facts regarding approximately 100 leading Canadian Preferred and Common Stocks, this Analysis will be found most valuable for study and reference.

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is of an inherent character, the same as the markings in animals generally. In these tests a male was used descended from three generations of dams that laid attractive brown eggs and he was mated to hens that laid whitish shelled eggs, not typical of the Barred Rock breed. From the first mating the number of whitish shelled eggs laid by the resultant pullets was reduced 75 percent as compared with the eggs laid by their dams. When mated again to his daughters the pullets laid almost 100 per cent brown eggs. The same practice of using males from a brown-egg strain was adopted in the general breeding pens with similar results. Thus by selection it would seem that uniformity of egg colour can be obtained in a flock.

### Vat and Churning Numbers on Packages of Cheese and Butter

THE system of marking vat and churning numbers on packages of cheese and butter, as required during past years, will be continued during the current year. Numbering will be consecutive throughout the calendar year commencing with the number 100 and the numbering continued consecutively until the end of December. In the case of factories making large cheese weighing 90 to 100 pounds or over, the vat numbers should be started at 150. Different sizes of type should be used for marking weights and churning numbers. The type used for marking weights

should be at least one inch high and black ink should be used. For marking vat numbers a three or four inch band numbering stamp with type one half inch high and three-eighths inch wide should be used, and for both vat and churning numbers red ink should be used. The registered number and vat number should be placed to the right of the lap of the box, the registered number being placed close to the lower band and the vat number placed vertically, above the registered number. The weight should be stencilled close to the bottom band on the left side of and quite close to the lap of the box. If a factory brand is used it should be placed to the left of the lap.

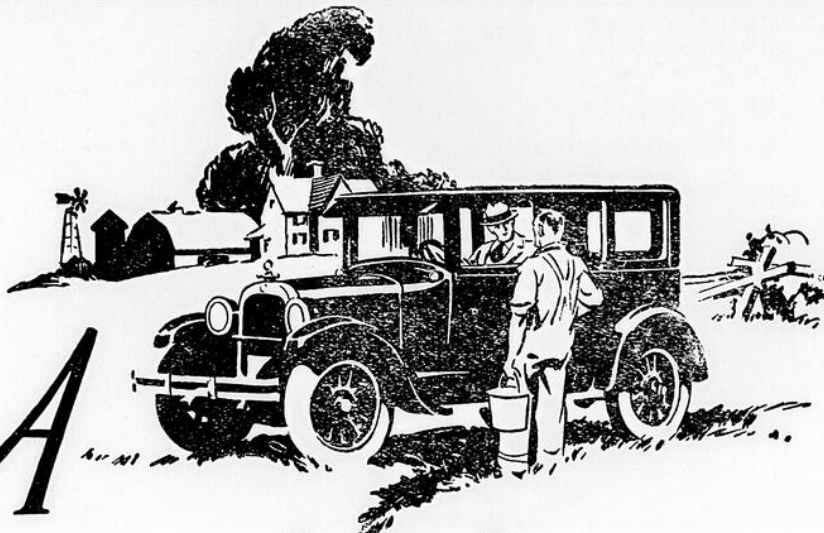
Churnings should be numbered consecutively in the same manner as vats of cheese except that the churning

number should be placed in the upper left hand corner of the box. The registered number should be placed in the upper right hand corner leaving the side of the box for the creamery brand. The creamery brand should be placed squarely on the center of the side of the box.

All marking must be legible and neatly done. Cheese and butter which is not properly marked may not be graded until the marking is corrected by the owners, or if graded a charge of five cents per package will be made and certificates will not be issued until this amount has been paid.

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The first automobile to leave Dodge Brothers Works—a Touring Car—was equipped with an all steel body.

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Brothers have perfected this superior construction for ALL their motor cars.

Beauty has been added to dependability, comfort and silence to beauty. Endless refinements have been made. Prices have been reduced.

But always in every instance, the quality of every detail has been maintained or improved.

The consistent goodness of the car has attracted a steadily expanding market. Wider markets have permitted a better and better product at lower and lower cost. Dodge Brothers progress has been conservative and logical.

The result is a GOOD NAME, worthy of the public trust it inspires, and too priceless ever to jeopardize.

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TORONTO, ONTARIO

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Cod Liver Extract In Sugar Coated Tablets Puts On Flesh and Builds Them Up

In just a few days—quicker than you ever dreamed of—these wonderful health building, flesh creating tablets called McCoy's Cod Liver Extract Tablets will start to help any thin, underweight little one.

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Most people know that from the livers of the lowly codfish vitamins of the first class are extracted—the kind that help all feeble underweight men, women and children.

Try these wonderful tablets for 30 days and if your frail, thin child don't greatly benefit, your druggist is authorized to give your money back.

A very sickly child, age 9, gained 12 pounds in 7 months.

Ask any druggist for McCoy's Cod Liver Extract Tablets — as easy to take as candy and 60 tablets, 60 cents.

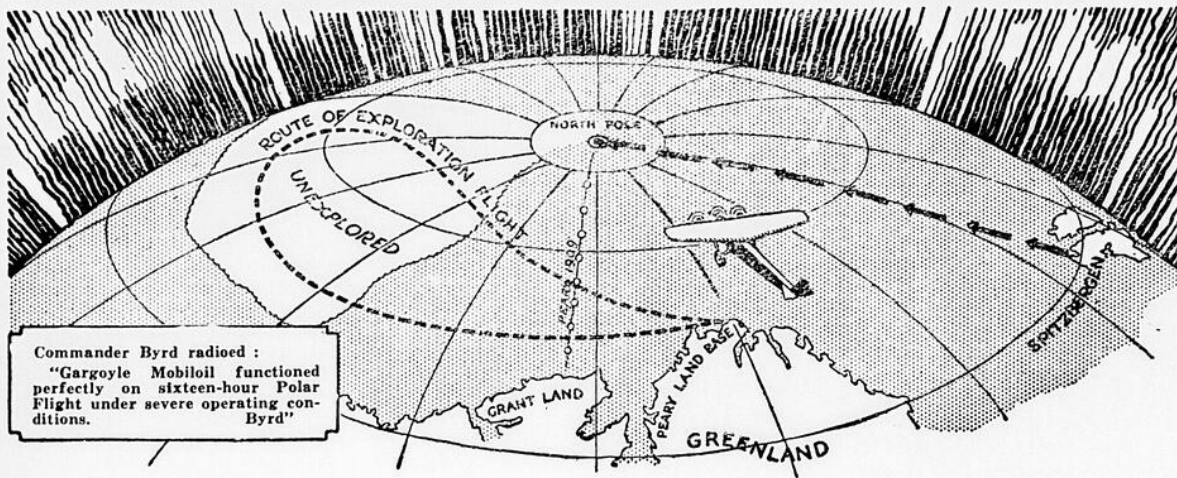
## FOR GIRLS WHO WORK

Lydia E. Pinkham's Vegetable Compound Is a Great Friend—It Stops Pain and Restores Health

Toronto, Ontario. — "I work in a factory and I would have to get away from my work every time I was sick. The dragging-down pains and cramps were very bad, but my back was terrible. It hurt so that I couldn't lie down with it. I heard some of the girls talking about Lydia E. Pinkham's Vegetable Compound, and they told me to try it. I have taken about a dozen bottles of it and it has done me a lot of good. I never have any pains or sore back now, and have not been off from work a day since I have taken it. I recommend the Vegetable Compound when I have the opportunity."—Miss ROLLO, 21 Howie Avenue, Toronto, Ontario.

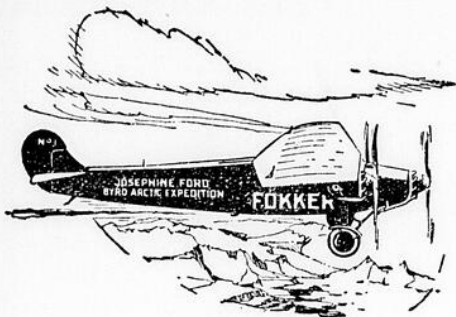
### "The Advice of a Friend"

Hanover, Ontario. — "I was terribly pained and a few odd times I almost fainted. I used to do housework until a few months ago and sometimes I had to leave my work and go to bed. I am now a mender in the knitting-mill. I suffered five or six years from painful periods before I took Lydia E. Pinkham's Vegetable Compound by the advice of a friend. I got relief almost immediately, and I tell my friends what a good medicine it is. You may use this testimonial if you like, if it will help others."—Miss J. PEARSON, Victoria Street, Hanover, Ontario.



Commander Byrd radioed:  
 "Gargoyle Mobiloil functioned perfectly on sixteen-hour Polar Flight under severe operating conditions."  
 Byrd"

# Byrd flies to the top of the world!



The Monoplane, *Josephine Ford*. Motored by three 200 h.p., 9-cylinder Wright engines. Consumes about 1 1/4 gallons of Mobiloil and 28 gallons of gasoline per hour. Cruising radius about 1,400 miles.

Successful flight to North Pole in Mobiloil-lubricated plane has a special significance for farmers

BYRD'S history-making flight marks another great achievement for flying, for a naval aviator, and for a Mobiloil-lubricated plane.

Commander Byrd chose Gargoyle Mobiloil as the one oil supremely qualified to meet the unusual demands made upon the Wright engines of his Fokker plane. He knew correct lubrication would be, perhaps, the most important single factor in the reliable operation of the airplane's motors.

Facing great hazards in Arctic ice, fog and winds, he could take no chances on faulty lubrication.

## Tractor Engines and Airplane Engines

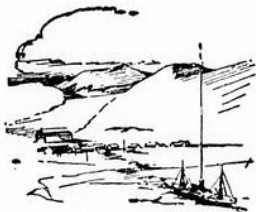
Your tractor, operating for long hours under full load, makes heavy demands on your lubricating oil. But here was a test on lubrication far more severe. The range of temperature was even wider, and the engines ran at wide open throttle for nearly 16 hours.

In Byrd's plane Mobiloil clearly demonstrated its superior ability to hold its body, and to maintain positive lubrication under full load and extreme heat. These same conditions occur in a less degree in your tractor. Are you taking advantage of Mobiloil's ability to meet them?

In 1924, Mobiloil lubricated the engines used in the U.S. Army Round-the-World Flight. The Mobiloil used in these flights was not a special oil prepared for the tests, but was the same Gargoyle Mobiloil that is on sale by good dealers everywhere.



Lieut. Commander Byrd dressed for the Arctic.



Kings Bay, Spitzbergen. Northernmost port open to navigation—a Norwegian possession. Byrd left S. S. Chantier here.



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## Letters to a City Cousin



My dear Ed,

"Many a farmer who would never think of hitching his womenfolk to a plow, will cheerfully forget all about their every day needs in the house.

"He has his hay loaders and stackers, his sheds for the implements — he has gotten so that he won't even saw his wood by hand. He's all in favor of comfort — for himself, anyway?

"Of course to some extent the women are to blame, they have become accustomed to drudgery and don't realize that they can have running water in every part of the house as well as electric irons and washing machines, toasters and percolators, just as any ordinary home in the city, and all from one plant. My dear Ed, this Caron plant is a wonder: I have one of their 3 h.p. engines with generator, this plant charges the batteries while it is pumping water from the well. I know of no other equipment that will give you Light, Water and Power all from one plant. It's a great help to me and as for the women—well; no words of mine could make it strong enough."

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# A Message to the Man who needs a Separator and Wants the Best

See a De Laval its Superiority is Evident

Try Let it prove how much cream it will save

Trade in your old Separator as Partial Payment

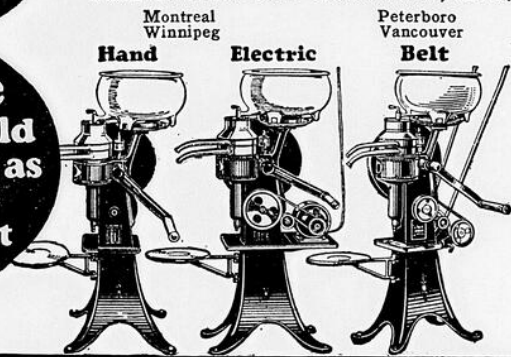
Compare an improved De Laval side-by-side with any other. See it yourself; and when you do you will not need an expert to tell you which one is by far the better designed and made, sure to last longer, do better work, and prove the better investment.

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The discs in the Libella bowl are not numbered and can be exchanged without affecting the balance in the least. This fact is indicative of the perfection with which the whole machine is made all the way through.

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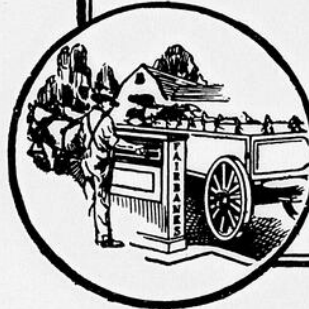
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"Why, that's lovely darling. Daddy's in the village. I'll telephone him to pick you up on his way home."

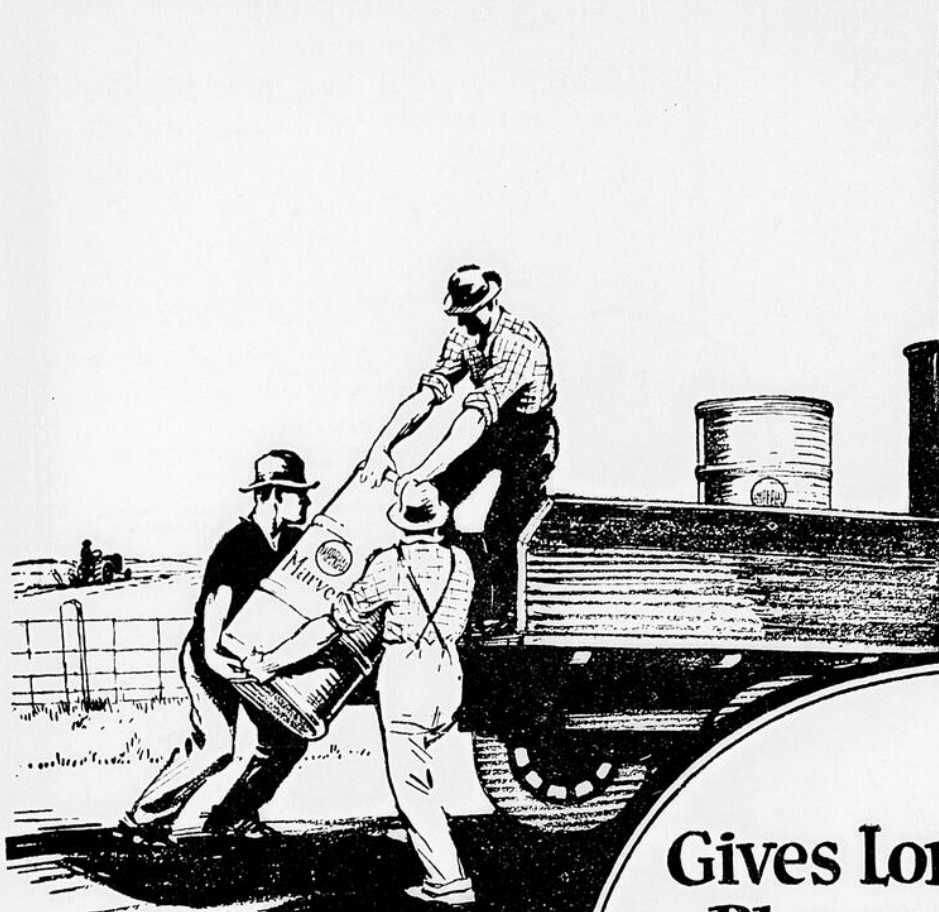


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