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LONDON, ONTARIO, JULY 27, 1911.

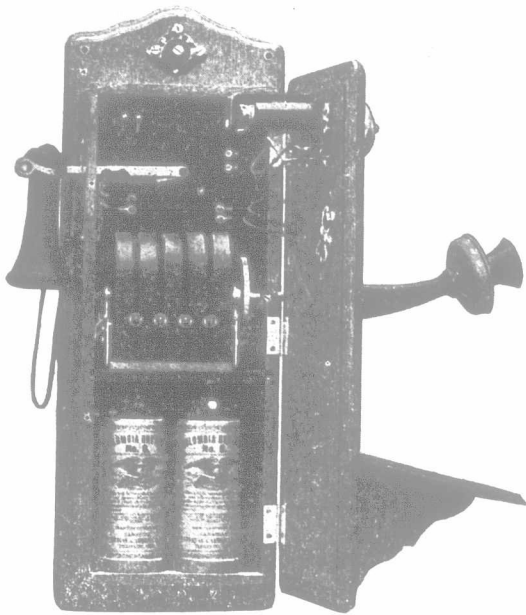
No. 983

The Clearest - Talking and Loudest - Ringing Telephone Constructed

THE accompanying illustrations show our Standard Type of Telephone for Rural Party Line service. It is the clearest-talking and loudest-ringing telephone on the market.

There are many features exclusive to this telephone. They are the result of our expert engineers' careful study of meeting telephone requirements. An examination by a man with a knowledge of telephone construction will prove that this telephone combines the utmost efficiency with the greatest simplicity.

A reference to the illustration of the "open" telephone will give you an idea of our method of wiring. Notice that our circuits are made into a cable, there being no wiring on the back of the telephone.



Each terminal is equipped with a German Silver Spade Clip, which insures a better contact and permits the disconnection of any terminal, without damage to wire and without use of soldering iron.

The circuits are distinguished from each other by different colored wires, making it an easy matter to trace any circuit desired. With each telephone is included a diagram of the complete wiring.

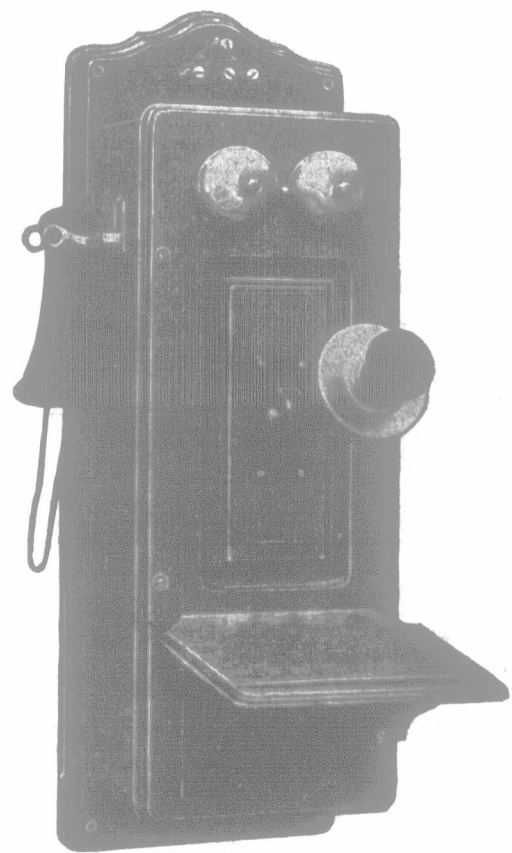
If you are familiar with the construction of telephones, you will notice we have discarded the old method of using hinges in transmitter and ringer circuits, which was objectionable for several reasons.

Another evidence of the simplicity of construction of our telephone is the generator. It is so designed that, by removing just one screw, the generator, shelf and all, may be lifted out for examination.

Another simplicity feature is the hook-switch, which is self-contained. And the receiver hook may be snapped into place or removed without the use of any tools.

When you answer the call sounded by our new chime gongs, you will have evidence of still another improvement. You will notice that there is no tingling, no vibration, no buzzing sound. That is because we have fitted our ringer with a dampener which automatically stops the vibration from the bell the instant the receiver is lifted from the hook.

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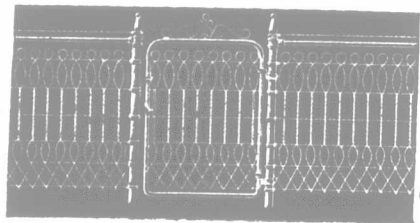
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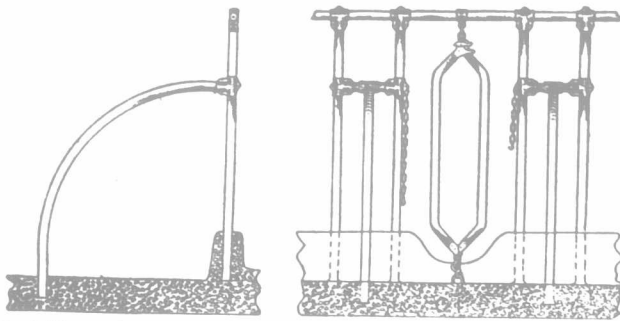
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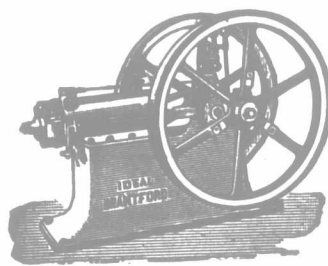
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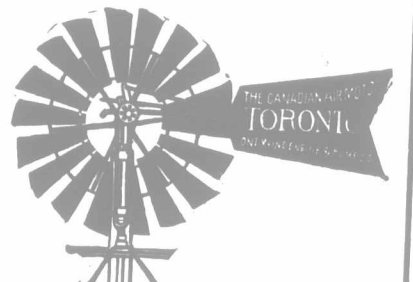
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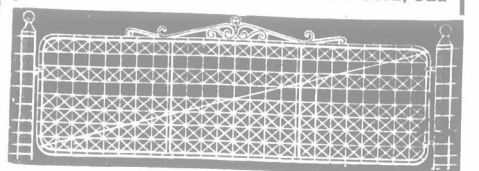
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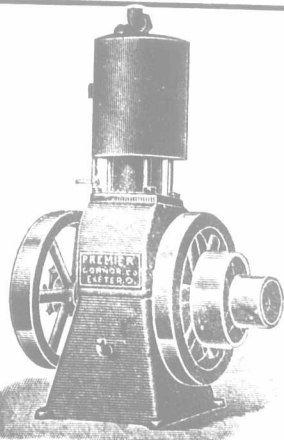
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Vol. XLVI.

LONDON, ONTARIO, JULY 27, 1911

No. 983

EDITORIAL.

With something of the same consummate care in production, and the same superb enterprise in marketing as the California citrus growers exercise, what marvellous possibilities lie ahead of Canadian apple culture!

That swale basin in the field ought to contain richer soil and more moisture than the higher ridge, and yet the oat crop there is nil. Why? Drowned out first, and then evaporated. A tile drain will cure the trouble. For proof, see that field on the next farm.

Whether it is because of the added fertility or increased capacity to hold moisture for the growing crop, or both, if anyone wishes to see immediate and tangible results, let him top-dress his meadow or grain field as the manure spreader does. It will not require an overcoat dressing to satisfy him, either.

I. P. Roberts, director of the New York College of Agriculture farm, when the boys had got the land all in fine shape, as they thought, for seeding, would come along and say: "Now, just till it all over again and you will have it about right." This expresses the idea of some "Farmer's Advocate" correspondents on the subject of soil preparation for spring grains in a dry season.

Shorthorn breeders with their ear to the ground will not miss the rapidly increasing attention being paid in England and elsewhere to milking function. One of the best classes of Red, White and Roans at the Royal this year was the dairy Shorthorn cows. Even in the sections devoted specially to females of the beef type, in this as well as other breeds, the cows must be in milk.

Some individuals look upon the agricultural calling through the wrong end of the field-glasses, and see only a mean, diminutive business, whereas, if looked upon properly, it does not need any great care in focusing, or any powerful lens to reveal it as a substantial, remunerative and satisfying business, worthy of the strongest fibre and the most active, fertile brains of the land.

Abolition of the public drinking-cup, and substitution therefor of drinking fountains, is the new idea in city sanitation. It has been calculated that a certain public drinking-cup examined contained twenty thousand human cells or bits of dead skin, while on every square inch of the glass were a hundred thousand bacteria, left there by smears of saliva deposited by the drinkers.

President Wm. H. Taft makes an effective answer to his predecessor, Col. Roosevelt, who raises his strenuous voice against the proposed arbitration treaty with Great Britain, even where matters of so-called national honor are involved. Mr. Taft shows that it is pre-eminently right that people should voluntarily impose limitations upon the exercise of their powers. The individual is no longer permitted to settle differences with his neighbor by his own might, using his fists, a club or a shotgun. That is not Christian ethics, but brute paganism. If a bad rule for individuals, neither is it right or good for nations.

Automobiles, Roads and Dust.

Ever a troublesome quantity in summer, the dust nuisance has been aggravated almost to the limit of endurance during the severe drouth of the present season. For two or three years the editors of "The Farmer's Advocate" have been pondering this matter with a view to some solution, but this summer's experience has, in a specially pointed manner, emphasized the need of prompt, effective measures to abate the nuisance.

"The Farmer's Advocate" farm adjoins a leading gravel road much travelled by automobiles. Fortunately, the house stands back about an eighth of a mile, but for a length of 100 rods crops are subjected to the daily dust bath. No doubt the dust was bad enough here before motor cars came into vogue. Since their advent, it has become worse. Day after day one can look out and see them shooting along, some in utter defiance of speed laws or speed sense. It is not unusual to observe a cloud of dust following them almost the full hundred rods' frontage of the farm. And what becomes of the material thus raised? Over the neighboring fields it spreads, coating trees, shrubs, small fruit bushes, grass, grain and corn with a sickening white-gray coat of bitter dust, which not only hinders their growth, but in many cases renders the small-fruit crop unmarketable, or saleable only at a discount. One of the most conspicuous cases of this kind is the "Stone road," from Hamilton to Niagara Falls. Automobiles fairly swarm along this road, and, lying, as it does, through a fruit country, the injury is very great. The county councils of Wentworth and Lincoln have been spending considerable sums oiling this road, with some degree of success. A similar instance is the Eaton road, on Dundas St., the main artery leading out of Toronto to the west. While fruit and vegetables are hardest hit, field crops also suffer. Think of feeding horses hay cut during a dry time in fields along such a road! Even for cattle or other stock it can be neither palatable nor wholesome. Grain is dusty to thresh, and all other crops must be more or less seriously affected. It is probably safe to say that hundreds of thousands of dollars worth of injury is being done the crops of Canada every year by automobile dust.

And what of the roads themselves? One of our illustrations shows. Along the wheel track the dust is sucked up by the pneumatic tires, or pushed aside to form a deep, loose ridge along the side of the driveway. After a rain, that hollow wheel track of six or eight inches deep stands full of water to soak down and soften the road-bed, paving the way for rapid disintegration of the gravel bond, which leaves the stones loose and bare. The principal injury, so far as the roads themselves are concerned, is done by heavy touring cars travelling at a high rate of speed. A forty horse-power machine, run to its capacity, will do far more than twice as much harm as a twenty horse-power. In England, where motor cars are used much more than here, the cost of maintaining the first-class macadam roads has increased from 50 to 100 per cent., according to locality. W. A. McLean, Provincial Engineer of Highways, estimates that the cost of maintaining the well-macadamized main roads in Ontario has increased 100 per cent. The injury to earth roads is comparatively much less, and it is but fair to point out that our mileage of macadamized or heavily-gravelled roads is not great. Neverthe-

less, the aggregate injury done to Ontario highways by automobiles is large.

Of the discomfort and unpleasantness endured by users of the highway, we need scarcely speak. On pedestrians it is especially hard. Trudging ankle-deep through loose white earth and stone dust is bad enough, without having one's lungs or clothes filled every ten or fifteen minutes as a team or motor car goes past. Whatever boots or clothes one wears under such conditions soon become a very unfashionable gray. Again, where houses are close to the road, the residents cannot leave their doors or windows open without having their houses filled with dust. Even automobile users themselves, while they may usually succeed in keeping out of their own dust, cannot escape that raised by fellow autoists, and nearly all of them would doubtless be willing to contribute to some effective means of laying the dust.

We have, then, three serious phases of the dust nuisance:

1. Injury to crops.
2. Injury to roads.
3. Great personal discomfort to users of the highway and persons who dwell near it.

It must be recognized that automobiles are here to stay. While scarcely sharing the sanguine anticipations of enthusiasts as to early universality of such means of conveyance, particularly in the North, where winter snows interrupt their use, and while expecting that the fad of motoring will be superseded in time by some other amusement, we cannot escape the conclusion that motor vehicles will continue to be largely employed for pleasure purposes, and increasingly for business. Tens of thousands are already owned by American farmers, and hundreds by farmers in the Province where this is written. The Ford Manufacturing Company has for years paid dividends of 100 per cent. This is ground for the assumption that, when the machines become perfect and the parts standardized, there is little doubt but that the cost will be cut away down, and then large numbers will be used. This will greatly increase the present heavy strain upon the highway.

There being no early hope of removing the cause of the dust nuisance, the question of remedy engages attention. In many urban and village communities sprinkling with petroleum oils has been resorted to, and, in spite of an odor disagreeable to unaccustomed nostrils, has given tolerably satisfactory results, at an expense of one to two hundred dollars per mile. While this is very high, it is not so high but that we would willingly co-operate with our neighbors to pay a proportion of it for the sake of protecting the crops. But why should we be called upon to incur such expense or sustain such loss, in order that Mr. Jones, of London, Mr. Smith, of Toronto, and Mr. Brown, of Detroit, may "raise the dust" along our farm, creating, besides, a certain risk to life and limb?

Divesting the discussion of all bitterness, is it not fair and just that those who do ten or twenty dollars' worth of injury to the road in front of the farm, and twenty dollars' worth of injury to the crops upon it, should contribute that amount in taxes to recoup as nearly as may be the ones who sustain the loss? These ones are the farmers or municipal corporations who build and use the roads, and the men with property adjoining the highway.

THE FARMER'S ADVOCATE AND HOME MAGAZINE

THE LEADING AGRICULTURAL JOURNAL
IN THE DOMINION.

PUBLISHED WEEKLY BY
THE WILLIAM WELD COMPANY (LIMITED).

JOHN WELD, MANAGER.

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

1. THE FARMER'S ADVOCATE AND HOME MAGAZINE is published every Thursday. It is impartial and independent of all cliques or parties, handsomely illustrated with original engravings, and furnishes the most practical, reliable and profitable information for farmers, dairymen, gardeners, stockmen and home-makers, of any publication in Canada.
2. TERMS OF SUBSCRIPTION.—In Canada, England, Ireland, Scotland, Newfoundland and New Zealand, \$1.50 per year, in advance; \$2.00 per year when not paid in advance. United States, \$2.50 per year; all other countries 12s.; in advance.
3. ADVERTISING RATES.—Single insertion, 25 cents per line, agate. Contract rates furnished on application.
4. THE FARMER'S ADVOCATE is sent to subscribers until an explicit order is received for its discontinuance. All payments of arrearages must be made as required by law.
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13. ALL COMMUNICATIONS in reference to any matter connected with this paper should be addressed as below, and not to any individual connected with the paper.

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LONDON, CANADA.

Accepting the fairness of the proposal, how is it to be worked out? We see no better way than heavy taxation, collected in the form of license fees, the money thus collected to be applied to the treatment of roads. It might, in part, go towards annual oiling or tar spraying to abate the nuisance, and in part towards the construction of tar-macadam roads, which are practically dustless, and resist the severe wear of automobile traffic. Roads of this type are expensive, costing some eight thousand dollars a mile, hence would hardly be economical, except on a few main-travelled highways. For some less-travelled concessions and side-lines, sprinkling with oil at judiciously-selected periods is probably the best solution in sight.

* * *

The present automobile tax in Ontario is so light as to be scarcely more than nominal. Perhaps it seems heavy enough to a person of scant means who has already strained his resources to buy the machine and keep it up, but such a one should not have bought. The man who cannot afford to pay taxes on an expensive city residence has no option but to sell. Likewise, we consider it a fair position to state that no one should run an automobile who is not able, through the purchase of his license to recoup the public for inconvenience or injury to roads, crops and person. There is reason to believe that a proposition to increase the tax on automobiles would not be seriously opposed by users of them as a body. The motorists of Ontario have, semi-officially offered to contribute 50 cents per horse-power, but very properly ask that they be given something for their money. This something should take the form of general road improvement according to some well-defined plan. The present automobile tax in Ontario is four dollars annually. A chauffeur pays \$1.00 for his license, and 50 cents a year for renewal. This taxation produces a total revenue of about \$25,000 a year. The Quebec Legislature has adopted the following tariff: For every motor vehicle used solely for commercial

purposes, \$5.00; for others of 25 horse-power or less, \$5.00; from that to 35 horse-power, \$10.00; from 35 to 50 horse-power, \$15.00; 50 horse-power or more, \$20.00. The Province of Manitoba last year introduced a Government measure proposing a similar schedule, except that cars having over 50 horse-power were to be taxed \$25.00. The State of New York imposes taxes ranging from about \$5.00 to \$50.00, according to power. The State of Massachusetts, to relieve local municipalities from the maintenance of main roads, has imposed an annual tax of from \$2.00 for motor cycles, and \$5.00 for commercial automobiles or trucks, up to \$25.00 for 50 horse-power and upwards. In England the tax ranges from about \$5.00 up to \$300, according to horse-power, the fund thus derived being administered by a newly-created road board.

* * *

It is clear from the foregoing that the fair principle of taxation for road maintenance has been recognized and widely crystallized in legal enactment. There is, we believe, a strong case to be made out for a much heavier scale of taxes on motor cars in America generally, in Canada particularly, and in Ontario more particularly. Special provision might, perhaps, be made for temporary licenses for visitors, at a reasonable rate. The fund should, in our opinion, be earmarked for road improvement, with a special view to alleviation of the dust nuisance. Here is scope for a broad constructive policy which promises more than the ordinary ineffectual efforts to limit speed and determine just where a motorist should stop at the upholding of a distressed teamster's hand. What say our readers?

What the Imperial Conference Did.

With the return of the Canadian representatives from viewing the Coronation splendors of the King, and sharing in the Imperial Conference at London, the people, upon reflection, will realize afresh that, while supreme sovereignty is nominally vested in the Crown, the real power is with themselves. And the people are minded to have it that way, though they still like the ceremonial pageantry. It is an uninformed view to say that the investiture of the King is a meaningless function, or his office without its uses and safety in what we call a "Limited Monarchy."

An important decision of the conference between the British Government and the representatives of Canada, Australia, New Zealand and South Africa was the appointment of a Royal Commission to visit the overseas dominions, and report upon their trade, resources, and methods for development. The various Dominions share in the cost of this Commission. Unanimously, it was the mind of the Conference as being wiser to obtain information than to counsel taking a leap in the dark in regard to regulating the trade of the Empire. Nothing was done in the direction of what is called Imperial Federation by a suggested Council of Empire, which might involve the dominions in troubles that did not concern them, or, rather, in any surrender of the rights of autonomy, jealously guarded particularly by Australia, South Africa and Canada. At one of the functions of the conference, the Speaker of the South African Union Parliament, Mr. Molteno, defined true imperialism to be that each dominion should keep its own house in order and make its own corner of the Empire strong. The strength of the individual part was the strength of the whole. Each dominion is to be master of its own house, but contributing as much as possible to the well-being of the Empire as a whole. This combination of "The Five Nations" is indeed unique; there has never been anything in the world just like it before. Were some great nation to make war upon Great Britain, that power would be sure, at war with Canada or Australia, and would have no scruples about attacking their ports or their ships on the high seas; and yet these dominions retain inviolably the control of their own armies and navies, and the right to say whether or no they will fight with Britain in her wars. Assuredly, to the last man and the last gun and the last dollar, Canada would rally

to the aid of the Motherland. One very significant and important feature of this Conference was the fact that, behind a confidential veil, the British Secretary of Foreign Affairs, Sir Edward Grey, discussed fully and freely, as never before, with the overseas representatives, the foreign policies and relations of the Empire. This candid insight into the momentous alliances, intricacies and responsibilities of the Empire throughout the world will probably be of more far-reaching consequence than might be supposed by some who are disposed jauntily to hand out a new, cut-and-dried way of running the Empire.

Certain principles were laid down by the Conference regarding vessels and shipping laws which will tend to greater uniformity throughout the Empire.

Another step in advance was when the most-favored-nation clause was amended. Hereafter the overseas dominions will not be bound by this clause, but will be free to make treaties with whom they wish, and on whatever terms they can. The British Government will amend the treaty to suit the overseas dominions.

A resolution was adopted affirming the necessity of cheaper rates between Britain and Canada, and, if this were not forthcoming, that a State-owned cable would be laid between Canada and the motherland.

A forward step was taken to bring about more uniform naturalization of citizens within the Empire. Heretofore, a British subject in Canada was not necessarily one in any other part of the Empire, but the Conference decided upon a five-year term, which will make a citizen of one part of the Empire a citizen of every part.

The question of an improved penny postage was dealt with, and also the establishment of a common Empire Day, which will probably be June 3rd, the birthday of King George V., in which case Victoria Day will be dropped.

These Imperial Conferences are to be held every four years, but may be called at any time, should emergencies arise. By bringing the home and outlying Governments into closer touch for the discussion of their common interests, these gatherings are proving of inestimable value to their representatives and an educational boon to the people as the knowledge and sentiments formulated become known.

Pauper Labor.

Among all the excuses pled in favor of protection, one of the most absolutely false, hollow and indefensible is the alleged need of protecting high-priced labor from the competition of pauper labor in foreign countries. In the first place, any general, all-round protection of that kind is impossible, since the basis of each country's commerce is its exported surplus of certain commodities sold in the world's markets where they must meet other foreign competition from the countries which can produce them most cheaply.

As illustrating how a community in which high wages prevail can compete with another where low wages are in vogue, Congressman Redfield, of New York, made a lucid and convincing comparison in a recent speech. He saw piles driven in Japan, twenty women with ropes lifting the pile. These women were paid 20 cents a day. Yet it cost four times as much to drive those piles as it would have cost in New York. Cheap labor may be, and often is, dear labor. Efficiency, ingenuity, management and invention, are more important factors than wages in determining the cost of labor in the majority of industries. Of course, there are certain industries in which invention has not yet displaced hand labor to any extent. Leave those industries to countries where a woman's time is worth twenty cents a day, import the products, and pay for them with the exports of industries in which a man, with the aid of machinery, can earn two, three, four and five dollars a day.

Some readers of "The Farmer's Advocate" have been surprising themselves this dry season with the favorable results of even a light top-dressing of barnyard manure on the oat field.



In the Track of the Automobile.

Photograph taken near London, showing how the pneumatic tire has sucked up and pushed aside the dust, leaving a furrow six or eight inches deep. This is a representative case. Much worse ones could have been chosen.

School Gardening.

The rural-school board that is not alive to the value of school-gardening and elementary agriculture is missing one of the best things of which progressive Canadian schools are availing themselves. Those who do not know the work being done in this department may be skeptical of its value, but to see the work undertaken and actually carried out by a teacher who knows his business, and who has the faculty of interesting boys and girls, is to be persuaded that the beginning of a new country life has been made.

The plot where the boys and girls do their work is prepared in the fall, as any other good garden is prepared. It is again wrought up in the spring, and then carefully laid out in plots of five by ten feet, a plot being assigned to each pupil, or, in cases where deemed wisest, one plot is shared by two pupils. Each youthful gardener lays out his little farm. He is supplied with seeds by the Education Department, but he is allowed to supplement this by seeds of his own choice. He is informed that his plot will be judged about the end of June and the first of October, along some such lines as planting, tillage, educational value, and economic value, the meaning of these terms being fully explained to them.

The actual labor involved cannot be great, nor can the time occupied in doing the work be considerable. But, on the other hand, the amount of thought that may be expended and the lessons learned are almost unlimited. At one judging contest, experienced farmers and gardeners were surprised at what these tiny plots taught or suggested. This was particularly the case regarding the value of the dust mulch. The pupil who used the watering-can, but who failed to cultivate, was left hopelessly in the rear. The pupil with the best dust mulch had by all odds the best plot. It was demonstrated that weed-killing is only one reason for cultivation. In the same way was shown the folly of overdeep cultivation, as by this method the rootlets are frequently destroyed. A further point was made in the importance of having a succession in the garden. A little forethought exercised, and it was shown how much a garden's yield is increased by having vegetables follow one another. Radish and beet seed, for instance, may be sown together. When the radishes are used, the beets are thinned and weeded.

The importance of this elementary gardening and agriculture does not consist in what the pupils actually accomplish. It consists, rather, in the new interest aroused in agriculture, and in country life generally. For too long have country people regarded the school as a sort of isolated affair that carried on its work quite separate from the practical necessities of life. This new activity brings farm and school together. Science is no longer looked upon as the pursuit of a few favored ones in school or college, but is shown to be at the farmer's right hand. The boys and girls are taught that hand and brain work together, and that the man who toils may be also a man who thinks. Rome was not built in a day. Rural Ontario will not come to its own suddenly, but if trustees will use this new school-gardening and elementary agriculture sympathetically, a long step in advance will be taken in the interest of rural life.

O. C.

"But the liberal deviseth liberal things, and by liberal things he shall stand." This is not out of date on the farm because Isaiah said it some twenty-six centuries ago.

The Verdant Grass.

Nothing else seemed to revive after the recent rains so noticeably as the grass. It is wonderful what an effect even a light shower has on this crop. During the dry weather and intense heat of June and the early part of July the grass fields became brown and parched, and the grass had a dead appearance, but immediately following the first rains which broke the dry spell, up sprang the grass, and soon the brown fields became verdant again. Human skill cannot do everything to promote heavy production. Rain is essential, and this is beyond our control, but we can do much to assist nature in producing an abundance of feed by using good judgment. Give the old pastures a rest for a short time by turning the stock on a meadow from which hay has been taken, and in a very short time they will grow up to a sufficient length to make excellent fresh feed, which will be relished by the stock at this time of year. The change will benefit the animals, and more satisfactory returns come from the pastures when carefully managed.

HORSES.

It is easy to scorch a horse when the temperature is hovering around the hundred-degree mark.

After-harvest tillage is now in progress. This is heavy work on the horses, and the summer heat may cause a scalding of the shoulders. Watch them carefully.

New oats will soon be in the feed bins. Feed these with care, as too heavy feeding may cause digestive troubles. It is always better to have old oats for the working horse.

Where grain is scarce, a few cut oat sheaves can be used. These are relished by the animals, but, like the new oats, must be fed in limited quantities until the horses become accustomed to them.

Care must be exercised in commencing to feed green corn to the horses. There is some danger of scouring, consequently, light feeding until they become accustomed to the new feed, should be the rule.

The driving horse or saddler does not require the same feed as the work horse. His feed must be that which will promote endurance. Pure clover is not satisfactory. It is too loosening, and causes a washiness in the horse that is compelled to do fast work. Timothy seems to be one of the best grasses for the driver, though many horsemen favor a mixture.

Trotting a horse fast down long and steep hills will in time cause him to become knee-sprung, but don't expect that trotting him up the hills will counteract this tendency or straighten the already sprung knees. A change of gait on the road is always easier on the horse, and if he trots on level roads, he surely deserves to walk up and down the hills.

Sore backs are quite common at this season. Much of the summer work, as mowing, horse-raking and reaping, is conducive to this trouble. Where sores appear, remove the harness every time the team is stabled, and bathe the sore parts often with cold water, and apply a lotion made of one ounce each sulphate of zinc and acetate of lead, mixed with a quart of water. Remove the cause as much as possible by adjusting the back-band and keeping it clean and free from the exudate of the sores.

A writer in the Live-stock Journal states that age has more to do with the production of foals than most breeders are willing to admit. Two-year-old fillies, if well matured and sufficiently developed, breed as readily as mares of any age. Doubtless some have wondered why it is difficult to get three or four-year-old mares with foal, and why it is that the number of foals produced by mares of this age is so small. The cause of their not breeding is given as the teeth, which are troublesome at this age, and which, it is said, cause an inflamed condition of the mucous membranes. Mares between the ages of seven and eleven years produce the largest number of foals, and comparatively few foals are produced by mares over fourteen years of age, and these few by those which have been kept breeding continuously. It is important that an old mare be kept breeding, for if she is, she will likely remain a breeder for many years. Allowing them to remain open for a year is risky, and it will often be found a difficult matter to breed them again. Horse-breeders cannot afford to let the mares miss a year, because very often, especially if they are aged mares, they will never breed again.

LIVE STOCK.

A Point in Selecting Breeding Stock.

That a knowledge of the breeding back of the individual is necessary in selecting breeding stock, was clearly shown by a large herd of swine which is kept on an extensive stock farm recently visited. The young stock were a thrifty, growthy lot, and every pen had individuals in it which looked good enough to justify their being kept for breeding purposes. They were long, smooth pigs, of good type, well grown for the age, and had every appearance of being the right kind to produce high-class stock if used as breeders. Looking over this young stock, one would be led to believe that they were the progeny of high-class sows, and that their breeding was all that could be desired to make them high-class, grade breeding stock themselves.



"Raising the Dust."

After scrutinizing the young stock and noting their good qualities, a visit to the yards and pens of the brood sows was rather disappointing. The sows did not show anywhere near the amount of quality exhibited by the young stock. They were narrow, somewhat rough, with long, narrow heads, poorly-arched backs, narrow loins and rumps, and light hams; and, while a little thin, they lacked the conformation and scale that breeders desire in their brood sows. Anyone searching for a brood sow would, upon looking over the young stock, have been able to select several sows of very desirable conformation, and would have expected nothing but high-class offspring from them when mated with the right kind of boars; but if a discriminating buyer had seen the dams of the sows, it is more than probable that he would not buy the young stock at any price. If he did, the results could not be expected to be as satisfactory as anticipated, before the young sows' mothers were seen. A sow from such stock cannot be used as a breeder with certainty as to the type of the offspring, and this class of young stock, while consisting of good individuals, is undesirable for breeding purposes. A certain amount of reversion is liable to be shown in every generation, and too much care cannot be exercised in selecting the breeding stock. In buying, always make it a point to see the kind of stock that the animal has descended from. In pure-bred stock, the pedigree serves to acquaint the buyer with the kind of stock from which the animal comes, but in grades it is absolutely necessary to know something of the breeding and conformation of the sires, dams and grandparents, while a personal knowledge of the individual ancestors is also preferable with pedigreed stock. Too much information cannot be had about the blood lines of the animals being purchased for breeding purposes, and the foregoing is a good illustration of how easily a person may be deceived in purchasing without a knowledge of the conformation and breeding of the ancestors.

Cows that Give Milk.

A commendable feature in the prize list of the Royal Show of England is that cows and heifers three years old and over in all the breeds competing must be in milk, this rule applying not only to those commonly called dairy breeds, but also to those generally regarded as beef breeds. The competition in the Shorthorn classes being numerically much stronger than those of other breeds, a separate class is given to Dairy Shorthorns, and the Scottish Farmer, in its report, says, "there was no more useful and interesting section at Norwich, and magnificent dairy cattle were there seen."

THE FARM

Fall Preparation and Early Seeding.

Editor "The Farmer's Advocate":

Your article on dry-weather crops, in this week's issue contains sound advice, and is an epitome on the principles of good farming. You ask your readers to give you any of their experiences with this season's crops, that may be of use to others in the future. I should like to say, first of all, that since the year 1861, up to the present, we have had a drouth in the growing season every ten years; that is to say, the years 1861, 1871, 1881, 1891, 1901 and 1911 were dry years, with short crops. It is also interesting to note that in each instance the following season was favorable, and crops good. We do not trust to memory, but have the written records before us. We have taken a deeper interest than usual in studying crop conditions this year, and we have been more impressed than ever by the fact that "good farming always pays best." Providence favors the up-to-date and up-to-time farmer every year. I note that, on soil in good heart, properly prepared, and sown early, crops are making a brave showing, while crops under the opposite conditions have long been hanging out signals of distress, and are slowly dying for want of moisture.

In this locality, weather conditions were good up to the middle of May, after which the day temperature rose abnormally high, and evaporation was very great. Plants with a poor root system, in a shallow and ill-prepared seed-bed, could not meet the demand made by the fierce heat for moisture, and the result was, as we see, a stunted and sickly growth, while crops sown early or under proper conditions were prepared to meet adverse conditions, and have at present every appearance of giving an average yield.

We do not lose sight of the fact that there are many farms whose soil is of such a nature that no skill or forethought could produce a full crop in a season like this. To the owners of these we extend our sympathy, and we would cheer them by the hope of a better crop next season. It is plain to all that fall-sown crops—wheat, rye, clover and grasses—suffer least from drouth, as

they make most of their growth in moist, cool weather. Farmers, therefore, with such soils, should aim to have a large portion of these crops. Then, with the hoe-crops, by manuring the preceding crop, or putting manure on in the fall, and sowing the crop at the earliest date, and so getting the advantage of the cool nights and early showers, there is less risk of failure. With us, fall-prepared root ground always gives the best results. We cannot do, by any human process, what the winter and spring frosts accomplish without cost or labor. Why not, then, take advantage of their generous help? It is becoming a common practice here to plant potatoes late, say the last week in June. We think this a mistake,

peas for field crops. I never saw peas better podded. Unfortunately, the blackbirds found them, and came in such numbers that they practically consumed them all. I had hoped to encourage the growth of these to combat noxious weeds, as they ripen before the weeds. Where the pea-bug is not prevalent, early-maturing varieties are much the best yielders, as, where sown early, they bloom before the hot weather sets in.

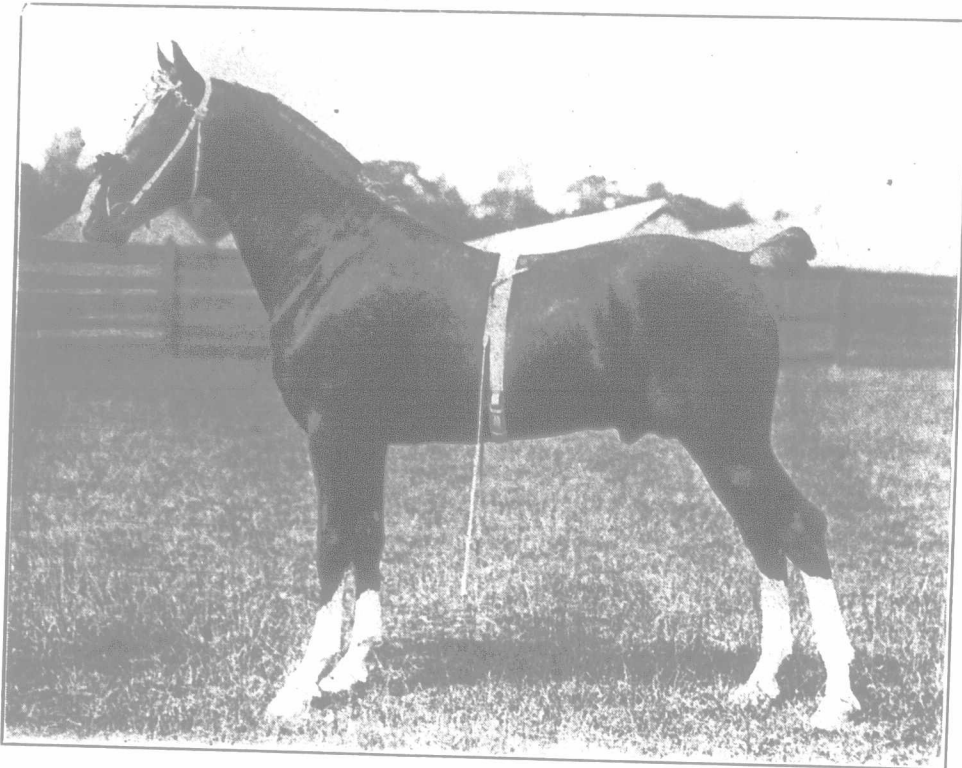
On one acre of our mangel crop we sowed 300 pounds salt, and cultivated it in before sowing. This has given a splendid stand. On two other acres, sown on spring-plowed sod, the same kind of seed never germinated. The land was worked over again and sown to Swede turnips. These germinated, but the heat destroyed them. Had this land been fall prepared, and treated as the other acre, it would have given as good results. We have worked it up again, and should the drouth break before August 10th, we will sow to Aberdeens. We have known them to do well sown on that date.

FOYSTON BROS.
Simcoe Co., Ont.

After-harvest Cultivation.

Harvest time has rolled around once more, the fields are fast whitening, and many of them have already been harvested. As soon as one crop is off the land, the grower must set to work to prepare his land for another. On fields that have not been seeded to grass or clover, no time should be lost in getting stubble land cultivated. All that is necessary for this early after-harvest tillage is a very light cultivation, but all the land should be stirred and worked. A few years ago this work was done with the small two-furrowed gang plow. This plowing was done about three inches deep, and was followed by harrowing the soil down to pulverize it. It is now necessary to cover more ground in a day, and, as a deep cultivation is not needed, it being only necessary that all the top soil be pulverized, disk harrowing or cultivating have taken the place of shallow plowing for the early autumn cultivation of stubble ground. This cultivating or disking should be done immediately after the crop is off, and is better followed by a stroke of the harrow.

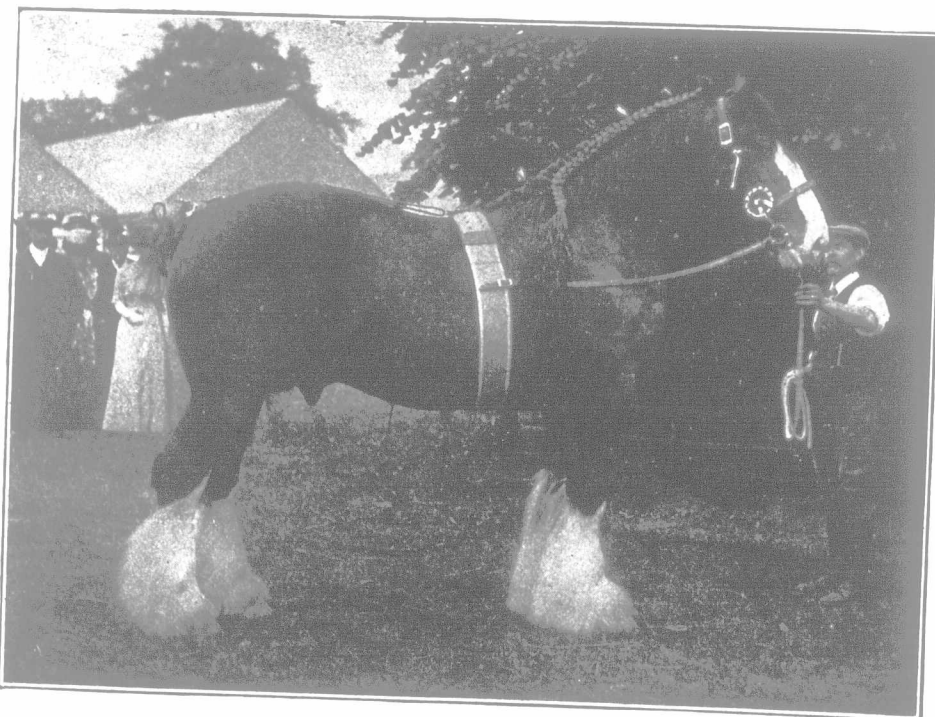
Now, what are the objects of this light working of the soil in late summer, and why is it necessary? The two main objects of this cultivation are the conservation of soil moisture, which causes the soil to plow easier later on, and the sprouting of the weed seeds, so that they may be destroyed by subsequent cultivation. To check evaporation, and thus conserve soil moisture, only a light, fine mulch is necessary, and a couple of thorough diskings or cultivatings, followed by a stroke with the harrow, serves to put the soil in good condition for this purpose. This cultivated top soil, by holding moisture, places the land in a better condition for the deep fall plowing. The dry weather and hot, parching sun of the summer and early fall cause the ground to become very hard and dry, if no steps are taken to check the loss of moisture. All practical farmers know how difficult it is to do good work with the plow when the land is so hard as it often becomes when



Woodhatch Viceroy.

Hackney stallion; two years old; chestnut. First in class and reserve champion. Royal Show, 1911. Sire Hopwood Viceroy.

especially in a season like the present. With seed weakened by repeated sprouting, and planted at such a late date, what chance can it have to produce a full crop or to fully mature its tubers, even should the drouth soon break? Then, seed taken from such a crop for next year's planting cannot but be low in vitality. True, early planting this season is showing signs of ripening, but the tubers are a fair size already, and the quality good. I notice, in our experimental plots, where we have five varieties under test, that planting the sets eighteen inches apart is showing good results. Every week since they showed above



Warton Draughtsman.

Champion Shire stallion at the Royal Show, Norwich, 1911. Exhibited by the Duke of Devonshire.

ground they have been wheel-hoed. At present there is a fine dust mulch two inches deep, beneath which the soil is quite moist. The vines appear healthy, and give no sign of lack of moisture, though the growth is slow. The grain and corn under experiment are all vigorous and healthy—in fact, could not look better. The grain is drilled in rows a foot apart, and was wheel-hoed twice. We were testing two varieties of early

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left until time for the late plowing, without any light cultivation and working such land is a task which takes a lot out of the horses.

If the conservation of moisture were the only benefit derived, the early cultivation would be justifiable, but, while this is a valuable consideration, the fact that this is one of the quickest and most efficient methods of disposing of some of the worst weed pests that infest grain fields is perhaps the greatest boon derived from this practice. The stirring of soil works the small weed seeds into it, and the first light shower causes them to germinate, or, in many cases they will germinate even if a shower does not come. The young plants grow, and are killed by the later and deeper cultivation, and thus are disposed of to give no further annoyance. It is impossible to estimate the number of weeds that can be killed in this way, and it is equally impossible to estimate the value of this light tillage. The shallower the cultivation the better, provided all the surface soil is stirred, turned or finely pulverized; and the finer the soil is made, the greater the amount of good done both in the way of holding moisture and in the weed-seed germination. The seeds of nearly all of the most noxious weeds are very small, and, consequently, to insure germination, the soil must be very fine. Cultivating or disking should be done twice over to make a good job of the work, and the earlier it is done after the grain crop is removed, the better. It saves considerable extra work the following year in ridding the crop of weeds, and will give greater ease in the fall plowing, insuring more efficiency in the work. Lose no time in getting on the fields after the grain is removed. Next year's crop will show the effects of such labor, and the increased ease of the deeper fall plowing will be appreciated by the horses, and much better work is possible.

Metal Buildings and Lightning Protection.

Protection from lightning is a subject that recurs with the coming of each spring time. In the violence of an atmospheric electric disturbance, accompanied by the awe-inspiring flashes of lightning so common with the thunderstorm, there are few who have not desired the protection of a lightning-proof shelter. The probability of an individual building being struck by lightning is really very slight, but there is always a possibility of such an occurrence, and also that the stroke might be attended with considerable violence, or the building might take fire.

HOW LIGHTNING CAUSES DAMAGE.

The formation of lightning is very imperfectly understood, but experience with its vagaries and a knowledge of the laws of high-tension electric currents has established a fairly good understanding of the methods of constructing lightning conductors for all ordinary discharges. It is very well known that lightning is the discharge of a large amount of electricity in a very short space of time, and that whatever affords it a passage to the earth is likely to be badly damaged, unless the vehicle happens to be a good conductor of electricity and of sufficient size to transmit the amount of electric energy the flash contains, in which case it passes away, doing no damage at all.

As a storm develops, the electrically-charged clouds pass over the earth, and when the electrical intensity becomes great enough to break down the resistance of the intervening air, the resulting discharge will pass into the earth by the most convenient path. This is commonly some high object of the landscape—a building, a pole, a tree, or any other object that extends up from the earth. If the object is a conductor of electricity, and connected with the earth, the lightning will pass into the ground without the least damage being done, but if it is not a good conductor, the havoc wrought in an instant is sometimes appalling.

VALUE OF METAL-ROOFED BUILDINGS.

Buildings with metallic roofs that are properly connected with the earth have better protectors from lightning than could be given by rods. Buildings that are completely covered with sheet metal and well connected with the earth are practically lightning-proof. Covered in this manner, buildings have been known to be repeatedly struck by lightning, without the least damage. The sheet-iron granary, so common in the West, when well connected with the earth, may be considered lightning-proof. The ground connections mentioned above may be made of metallic rods that extend well into the earth, and securely fastened to the metallic covering of the buildings.

In considering the form of lightning conductors, it is well to keep in mind the fact that a metal-covered building well connected with the earth is practically lightning-proof, and that one with a metallic roof, well grounded, is excellently well protected, if not perfectly safe. If, then, the roof of a building possesses a metallic ridge, eaves-troughs and down-spouts, these will afford very

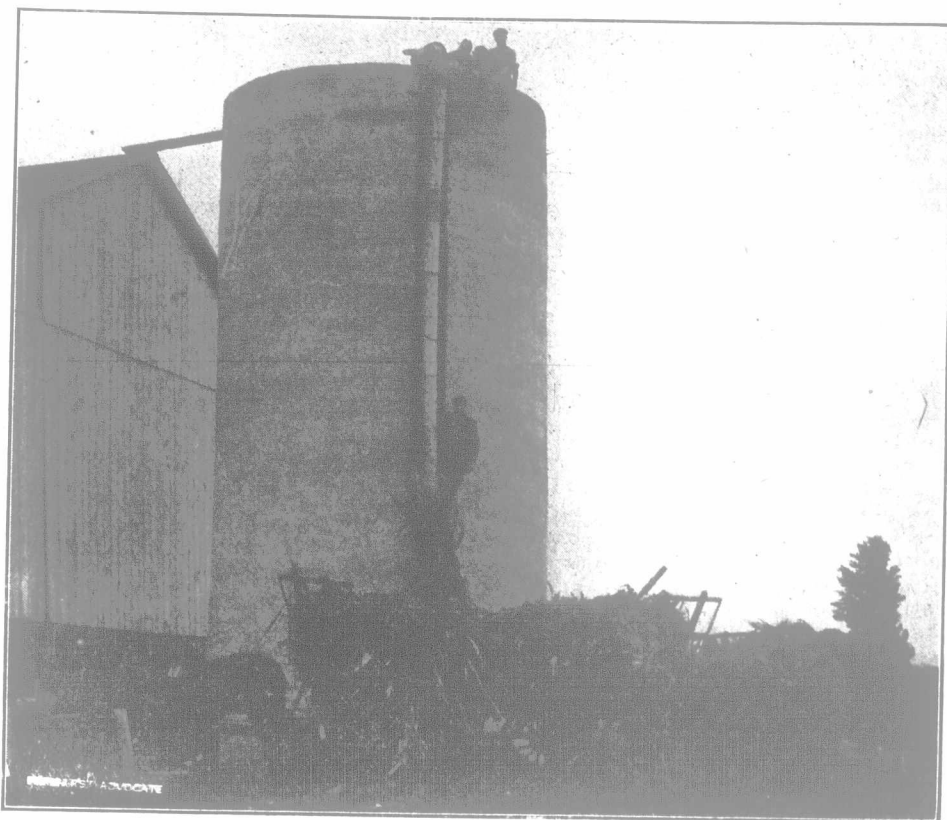
good protection if they are well connected and well grounded. A roof covered with a metallic screen, as a chicken screen, makes an excellent protector when properly grounded.

It must be remembered that the ground connection is a positive necessity, and too much care cannot be exercised in its construction. The earth is the great reservoir of electrical energy, and is always kept at zero potential. If a discharge of lightning can be directed into the moist earth by a conductor, its energy is soon dissipated, but the ground connection must be of considerable area, and extend well into the moist earth. A piece of galvanized iron pipe driven into the ground seven or eight feet makes a good "ground." Large buildings must have two or more such "grounds."

Cement Slop Wall Silo.

It is often said that there is no "best breed" of cows. That depends on the conditions of the farm, the preference of the owner, what the cows are kept for, and how they are handled. So there is wide diversity of views, according to circumstances, on the subject of silo construction, and the materials used, whether wood, steel, or cement-concrete in the form of hollow blocks or what is called the solid slop wall. In earlier days, stone and bricks were also used, but these materials have generally fallen into disuse. There seems to be more agreement that the silo should be round than over any other one point, and also that the bottom should be well drained. Though it adds to the outlay, most men agree that the silo should be roofed, but in hundreds of cases this is still neglected. It is desirable to keep out the cold, wet and snow of winter, and, for summer feeding, the silage in an open silo is very much more liable to ferment and spoil after heavy rains.

In response to inquiries where good sharp gravel is available, by persons who wish to erect slop cement wall silos, "The Farmer's Advocate" has secured information from a number of Middlesex County men who have used them. A. W. Venning estimates the cost of his 12 x 40-ft. silo, inclusive of a tasteful-looking roof, at \$200, besides his own labor. The wall is 14 inches thick at bottom and 9 inches at top, and required 57



Slop Wall Cement Silo.

At filling time on dairy farm of Dr. Chas. A. Cline, Middlesex Co., Ont.

The connecting wires must be securely fastened to the ground connections.

SIZE OF CONDUCTING WIRES.

In the matter of conducting wires, the United States Weather Bureau, in a bulletin on Lightning and Lightning Protection, recommends a No. 3 galvanized-iron wire as amply sufficient in size for ordinary lightning protection. If metallic down-spouts are used as conductors, the connections should be made with the "grounds" with riveted joints. Copper conductors give no better protection from lightning than iron, if the iron is kept covered to prevent it from rusting.

barrels of cement. He expects ten acres of corn to fill it.

H. J. Barons, after having a lengthy experience with a cement silo on another farm, found it so desirable that he erected another on his present place. He did a good deal of the work himself, and kept the cash outlay down to about \$85. It is five feet under ground. This helps to keep the silage better in summer, but in such cases, usually, drainage is essential. His silo is 12 x 36 feet, and he owns the set of rings used in its construction.

One could not ask for a neater-looking or more satisfactory silo than one built two years ago on the farm of Andrew Dodds. This silo is 14 x 35 feet; wall 18 inches thick at foundation, starting 10 inches thick at ground line, and tapering to 6 inches at top; walls very hard, smooth and true. He used eight or ten loads of stone, twenty-eight loads of gravel (one-third cord to a load). Thirteen loads of the gravel were fine, and fifteen loads coarser; 41 or 42 loads Portland cement, at \$1.35; paid 25c. a load for gravel and sand; \$2.25 per foot of height for building; reinforcing iron, about \$5.00, two strands 1/2-inch iron being placed in every ring. The total cost of this silo is figured at \$160 in cash. It has five doors 2 feet 1 inch across in jamb, by 2 feet 9 inches high.

Chas. Jackson built silo in 1910; height 35 feet, 12 feet inside diameter; wall 14 inches thick at bottom, tapering to 8 inches at top, 3 feet below ground; five openings 2 feet by 2 1/2 feet each; small opening left about one-third down for blower, but not needed. A good deal of heavy stone was used in foundation. Material used: 42 barrels of cement, at \$1.40-\$58.80; 10 cords gravel,



"Pointon Cracker 4th."

Lincoln two-shear ram, first and champion, Royal Show, Norwich, 1911.

Wire fences are often the cause of damage by lightning because of the method of construction. If the fence wires are grounded, the danger from this cause will disappear. Ground wires may be made of ordinary fence wire, and should be connected with each of the wires of the fence, and extend into the ground three feet. Such "grounds" should be made for each 100 feet of fence.—E. S. Keeney, Professor of Physics and Mechanical Engineering, in "Metal Worker, Plumber and Steam Fitter."

at 75c.—\$7.50; 325 pounds $\frac{1}{2}$ -inch round iron for reinforcing—\$8.00; excavating and building silo, complete, including floor and cement washing, \$78.50; about 13 days with man and team, say \$35.00; total, \$187.80, which, with roof yet to be put on, would bring the total cost to about \$200. Material mixed 1 cement to 7 of gravel. It would take, he estimates, about 8 acres first-class corn to fill it. Six acres filled it 25 feet up last year. The silage kept fine right to the wall, though there was a little trouble with snow, wet and frost on the north side. There was no drying out of the silage at wall. When roofed, Mr. Jackson will be entirely satisfied with his silo. Three barrels of the cement were used to wash the inside.

Wm Brown (tenant on Jas. McNiven's 200-acre farm).—Silo 16 feet inside, by 40 feet high, erected in 1910, completed a couple of weeks before filling; 2 $\frac{1}{2}$ feet (one ring) in ground; base of wall, 18 inches; at ground, 10 inches, tapering up to above one-half way up, where it continues 6 inches to top; five openings for silage, bottom one 3 ft. x 2 ft. 6 in., top one a little smaller; opening 12 inches square for blower pipe about 7 $\frac{1}{2}$ feet from top. Cement work at \$3 per foot, including floor and cement washing inside; also men boarded at 20c. per meal. About two rings per day put up; Portland cement used, with good sharp gravel; excellent wall, hard and smooth, without a flaw; no roof; held about 25 acres of well-matured White-cap corn, but one-third to one-half of it was short. Mr. Brown thinks on an average of about 20 acres of corn would be needed. No trouble elevating with blower and steam engine; silage kept well right to wall; no trouble with frost so long as kept down level, especially at wall; none spoiled through large surface; fed 35 to 40 head; mature cows got about two bushels per day with cut straw. This heavy silage feeding was because of shortage of other foods, but no beast went off feed; about three feet, covered with six inches of straw, left for summer feeding. Mr. Brown thinks probably 14 x 40 ft. would have been large enough. Stuff from blower should fall in center of silo; large silo requires relatively less tramping; had three men tramping and levelling. The materials used were 57 $\frac{1}{2}$ barrels cement, at about \$1.45; 13 cords of gravel, at 75 cents; hauling gravel in summer by gravel man, \$61.75; building wall, etc., at \$3.00 per foot, \$120.00; reinforcing rods, $\frac{1}{2}$ -inch, \$10.25; fence-wire stays used, \$3.00. Total cost, over \$300.00. Two courses were laid per day, and each evening on the top of wall an old horse-shoe was bedded about half way in, prongs down, every five feet, to form an extra bond with the bottom of next course, laid the following morning. Mr. Brown, who has had to do with two cement silos, advises using as much water as possible in the cement-concrete to make a hard, strong wall. The old silage was uncovered on July 5th for summer feeding dairy cows, pastures being short owing to dry weather. Except a little next the wall, the silage had kept in good condition, and was fed about half a bushel twice daily.

Benj. Holtby has a fine-looking silo, roofed, which he likes so well that he would hardly care to try to farm without it. The size is 14 x 37 $\frac{1}{2}$ feet; foundation wall, 18 inches thick, 12 inches at ground, to 6 inches at top; four openings for feeding out, 2 x 3 feet; cement bottom, 4 feet in ground below bottom of first window, the site being naturally well drained; cement-washed inside. Not including teaming and roof, the cost was some \$210. Mr. Holtby does not begin feeding out of the silo early in the winter, as he aims, especially, to hold a good supply for summer and early fall, when pastures are short and meadows suffer from close cropping. This season he opened it the first week in July, having 16 feet of sound, solid silage; fed mature cows half a bushel each night and morning. Some younger stock were fed in wooden boxes in the yard, and all ate it greedily. "In fact," observed Mr. Holtby, Jr., "we have to shut them back in the fields to keep them away from the barn." He does not expect to have it all fed out before there will be new-corn fodder.

On the day that several of the slop-wall silos were visited, three built of hollow cement blocks were also seen, owned by A. Gracey, Thos. Harris and Henry Harris, which presented a very fine exterior appearance, and the silage was reported to have kept well, with no trouble from freezing next the walls in winter. They are plastered inside, and it seems a little difficult to erect the block walls entirely free from checking, though, being well reinforced, no future trouble is anticipated. In the absence of the owners at the time of calling, details as to cost were not available.

Experience with summer and autumn sowing of timothy and clover to thicken poor stands on new-seeded fields, is specially invited. Tell when you sowed, quantity of seed, cultivation given, and results.

A Substantial Country Home.

Among the most satisfactory evidences of rural prosperity are substantial, tasteful and well-planted modern country homes. Examples of such are purposely published in "The Farmer's Advocate" from time to time. This week we have the residence of Geo. B. Webster, of Perth Co., whose farm consists of 100 acres, all cleared and under cultivation. Mr. Webster follows a system of mixed farming, including dairying (sending cream to the creamery), hog-raising, and poultry, and also tries to raise some Clydesdale horses every year. He feeds all the coarse grain produced on the farm, and also grows corn for silage and alfalfa for hay.



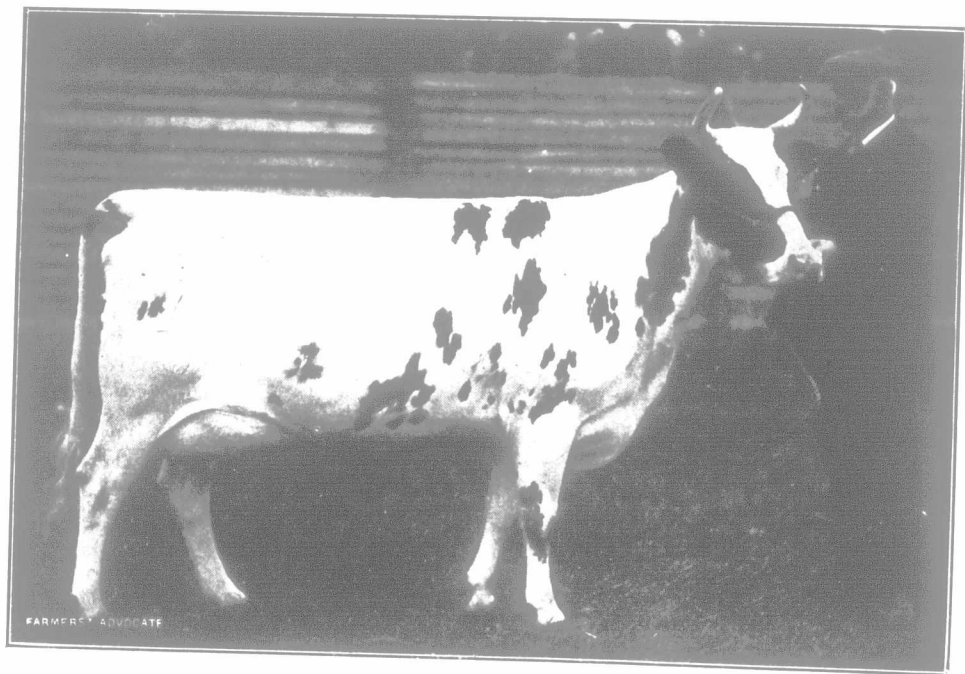
"Aldersyde."

The comfortable farm home of Geo. B. Webster, Perth Co., Ont.

The house was built in the year 1900, and cost \$2,500, exclusive of his own labor for teaming, etc. It is fitted up with modern conveniences, heated with a furnace, and the bath-room and wash-room are supplied with hot and cold water.

Thorough Surface Cultivation.

Editor "The Farmer's Advocate":
Our method of spring cultivation does not differ materially from that of other farmers in this vicinity. For oats and barley, the ground (clover sod and corn stubble) was fall plowed to the depth of six inches. Before sowing, the disk and



Dewdrop 1st of Old Graitney.

First-prize Ayrshire at the Royal Show, Norwich, 1911.

spring-tooth cultivator were used until the land was thoroughly pulverized, the drag harrow not being forgotten. The latter implement is a favorite with us for putting land in condition for sowing. Two or three days after the grain was sown, the land was seeded to clover, and received another harrowing. At the present time the soil is loose on the surface, though the last day or two it is getting rather dry. Straw is a good length, and headed out well, but the grain will probably be rather light, no rain having fallen here for nearly three weeks. I can state that

a field of Joannette oats is quite heavy; a storm of wind and rain would lay them flat. This field was sown on May 4th, receiving the same cultivation as two others sown April 28th and May 6th, respectively. There are some tile drains in these fields, but more are needed.

A storm of hail has passed through since writing the foregoing, spoiling the appearance of the fine crops, threshing the barley and oats, and riddling the corn. JONATHAN AUSTIN.
Norfolk Co., Ont.

After-harvest Cultivation.

Editor "The Farmer's Advocate":

Harvesting operations are now general in Ontario, and will be over in the course of a week or two. While fair yields of grain are being harvested in many localities, the yields generally are not large, but the weeds seem to have put forth a special effort to reach maturity in good condition, and are quite up to the standard numerically, as well as in quality. This is especially true of wild oats and thistles.

The early harvest this year affords the farmer a splendid opportunity of ridding himself of at least a number of these troublesome pests by cultivating the fields just as soon as possible after the crop is drawn in.

This may be done in several ways, the most common of which are by using a disk harrow, cultivator or gang plow, but I much prefer the latter method, especially if you wish to kill thistles. The gang-plow has at least three advantages over other implements in doing this work most efficiently. The shares of a plow miss cutting few weeds, while the best cultivators miss many. The plow also inverts the surface soil to any required depth, placing all weed seeds lying on the surface under the soil, where they are almost sure to germinate, while the best that cultivators and disk harrows can do is to mix them with the soil, leaving many uncovered and others too near the surface to grow.

The plow levers should not be set to cut too deep a furrow. About three inches is the most suitable depth to plow. Plant life does not make nearly as rapid growth during the latter part of the season as it does in the spring, even though the temperature may be the same, or warmer, and all other conditions seemingly as favorable. This is true of wild oats, as well as many other weed seeds; so the earlier they can be started to grow, the better, as the percentage which will germinate falls off rapidly as the season advances, and the middle of September is about the latest date that cultivation is of much use to germinate weed seeds.

But weed destruction is not the only advantage of after-harvest cultivation. By bringing the surface soil to a fine tilth, the moisture already in the soil is largely retained, and what falls before fall-plowing commences is not nearly so easily evaporated from the soil, and when the plowman goes out to his field to turn the soil for the last time before the winter sets in, he will have some pleasure in having his plow run evenly and steadily along, turning up moist soil, and not have to be constantly dancing along in his effort to hold his plow in the ground, as is the case in

many uncultivated fields, especially if little rain falls after the crop was cut. The horses, as well as their driver, will also share in the advantages of plowing a moist soil by being able to draw the plow more easily, and not be required to unnecessarily exert themselves.

Let all farmers who can at all get their gang-plows going, and not only destroy many of their worst weed enemies, but make fall plowing a more pleasant and easier task for both man and best. "MAC."

Favors Good Honest Plowing.

Editor "The Farmer's Advocate":

Judging by results these last few years, moisture is more necessary to produce good crops than fertility. The question of retaining the soil moisture is very appropriate at the present time. It has been said by eminent agriculturists that there is enough moisture in the soil through melting snow and rain during the fall and winter to produce and mature good crops, without any rainfall during the growing season. Be that as it may, we do know that much can be done by better preparation of the soil to produce a good crop, irrespective of the season.

One point brought out by your article entitled "Dry-weather Crops," is that a good deal of mischief has been done in recent years by shallow plowing or skimming, which I believe to be only too true. I am satisfied that the farmer who plows his land shallow and works it shallow is assisting the water to evaporate from the soil. Surface cultivation is all right, but there is a vast difference between the good old honest system of cultivation and the so-called surface cultivation. It also seems to me that the quicker we get rid of this shallow plowing idea, the better it will be for ourselves. Deep plowing is all the more important, when we consider that it has its advantage in a wet season, as well as in a dry one.

It is a question with me whether spring plowing will not conserve more moisture and produce a better crop of spring grain than the system so much in use of simply cultivating and harrowing the ground plowed in the fall before sowing. On the writer's farm this season (a very dry one) have been found two instances where the spring plowing has given much the best results. A field of ten acres was in 1910 manured, and rape sown. This was fed off in the fall, and about two acres plowed, when frost put an end to the job. The balance was plowed this spring, and the whole sown with barley. That sown on the spring-plowed ground came up better and kept the lead all through the season. It was about six inches longer, and much better headed than the other. On another field, where corn and roots were grown last year, the corn ground was plowed last fall, and worked up in the usual manner this spring. The root ground was plowed this spring, and well harrowed and rolled. The results in this case were even more pronounced than in the other.

Perhaps some of your readers have had similar experience in this respect. We are told that on many of the farms of the United States plowing to a depth of sixteen inches is quite frequent. How much more will be the ability to hold water in land like that than where it has a depth of four inches?

WM. ELLIOTT.

Waterloo Co., Ont.

White Grub Fungus.

Editor "The Farmer's Advocate":

I have read with much interest, both last summer and this, the various letters regarding the white grub, which does so much damage in many places. Two or three years ago the June beetles were very numerous, and it was feared much damage would follow, but, strange to say, this summer it is seldom we find a white grub. There is a fact not generally known, that a parasite follows these grubs, and, unobserved, from time to time, the grubs are destroyed. This parasite, if it may be so termed, is found attached to the grub on the back, just behind the head. It is of purple color, and looks like the sprout of a dahlia bulb, only much smaller. These curious plants grow till the grub is consumed, and only the shrivelled skin remains. These plants may attain two inches in height, and even appear above the surface of the ground. It soon dies for want of food. If it were possible to start this remedy at will, white grubs would soon disappear.

The late Dr. Fletcher explained this some years ago, after his experience with the Hon. Sydney Fisher's lawn, at Knowlton, which was entirely destroyed by the grub, when they in turn fell victims of the parasite, and were seen no more.

I am inclined to think that the same thing happened here last year. I have never found but one specimen.

P. P. FOWLER.

[Note.—The parasite to which Mr. Fowler refers is no doubt the white-grub fungus (*Cordyceps ravenelli*), which is usually a potent cause in the suppression of the white grub. Efforts have been made in the past to cultivate this fungus, without success. In France, some years ago, a fungus

which destroyed the European species of white grub was cultivated artificially and distributed, its use being followed, I believe, with a certain amount of success.—C. Gordon Hewitt, Dominion Entomologist.]

Dry-weather Crops.

Editor "The Farmer's Advocate":

It is a timely question both in Ontario and Western Canada, how to produce good crops without sufficient rainfall.

It is a very pleasant sight to see good crops and neat, well-kept farms. A drive through such a district would be a feast for the eyes, but this is rarely to be found. Some farmers do not have good crops because they do not try. This is, perhaps, the main reason why the crops on one side of the road are good, and on the other side poor. There is certainly no such thing as "magic farming," but there is such a thing as "good farming," and it embraces a good deal. When the farmer really understands why he follows certain methods, and finds the results gratifying in larger yields, he is encouraged to continue his scientific work, and thus farming gives him pleasure.

Now, coming to the question of cultivating the soil in very dry weather to help a crop of corn or beans, we must accept what scientists tell us, put it into practice, and watch the results. Frequent cultivation not only conserves moisture, but allows the air to pass into the soil. By this means, the organic remains of former crops and manuring are oxidized, the nitrogen being converted into nitric acid.

We can see the result of cultivating in dry weather by the increased growth of the crop. Not only this, but it is a splendid preparation for the following crop. Plow down a clover sod for beans. Cultivate and keep clean, and you have an ideal preparation for wheat. A clean corn field, disked about three or four inches deep the following spring, will yield a larger crop of oats or barley than if the field was plowed. I have seen this tried in former years, and to-day I can point to three fields of oats prepared as mentioned above, and they are the best-looking oats in the district. The earliest sowed field is the best of the three.

It is very plain that a man cannot farm one year at a time. He must always work for the future, and make one crop prepare the soil for the next. It is good practice to seed down all wheat and oats with red clover. What is not needed for hay makes good fresh pasture late in the summer, and enriches the soil when plowed under in the fall. It is a very economical manure.

When speaking of the preparation of soil for spring grains and wheat, I did not mention the application of manure, as it is understood that, to get good crops, any soil should be rich in humus. Generally speaking, it is impossible to get a soil too well supplied with humus.

Would like to advise every farmer to get a copy of "Warrington's Chemistry of the Farm." It is simple and to the point. I shall be glad to read others' opinions on this subject in your valuable paper.

S. M. PEARCE.

Elgin Co., Ont.

Concerning Farmers' Wages.

Editor "The Farmer's Advocate":

Having noticed in your paper, a few weeks ago, an article comparing farming and railroad wages, I thought I would give an account of my brother's earnings. He is now twenty-four years of age, and has worked at home since he left school. At eighteen years of age he began to receive wages at \$200 a year. Two years later he invested his money by making first payment on a small adjoining farm worth \$1,500. He and my father worked these two farms and another rented farm—in all, 200 acres—for four years. About \$100 a year was spent in hired help. During these four years the farm has been paid for, while similar payments were made on the home place. This place has been improved by fences, drains and buildings, so that its value is nearly doubled. My father has kept a family of six out of the place, besides making material improvements on the home farm.

Of course, this took hard work, though we work short hours, even in the busiest time. Also, my brother does not go to the city and spend a large sum on a "blow-out" every little while.

Did a railwayman ever buy a farm by six years' labor? If anyone did, I would like to hear it. I see no reason why this should not be duplicated many a time on the rich farm lands of Ontario.

N. F.

Ontario Co., Ont.

Careful Plowing and Furrowing.

Editor "The Farmer's Advocate":

Conserving moisture in dry weather with grain crops is quite a problem, where the cultivator cannot be kept going and no underdraining has been done. In most cases such land has either been seeded far too wet or too late in season for a good crop, and unless a very favorable season ensues, the crop is sure to suffer a great deal from drouth. If too late seeded, the crop is almost sure to suffer likewise, as the growth is not rank enough to protect the surface from drying out too deep, and the crop suffers from the effect. If, on the other hand, it was too wet when sown, the tramping while working on it leaves it in very bad condition to stand the drouth later on, and also in bad condition for next crop, as, if not seeded to clover, it is sure to plow very lumpy, and is hard to work.—It is needless to say anything about root or corn land, as it is generally understood that the constant use of the cultivator is the only means of retaining the moisture needed for the crop, but, with grain crops, the preparation has to be made before sowing, and the early seeding of spring crops is decidedly the best, and, everything being equal, can be counted on to give the best yield of grain. Where no underdraining is on the farm, these fields can be got dry enough considerably earlier by plowing good even ridges not too wide, about 18 feet, with plenty of water furrows well cleaned out and good ditches to carry the water away. These water furrows will fill in very easily when working the field in spring, and will not bother machinery, and they will have acted a good part through the winter and early spring. So put in plenty of them; it is time well spent. Now, with one field, at least, to be able to get an early start in the spring, try the old plan of plowing after harvest, and working it down to kill weeds, etc. No better plan is known for twitch-grass. Then, late in the fall back-furrow, as it is called, or, rather, drill the field up, same as for roots, by making a drill with every furrow. The water gets off this land very early in spring, and the frost has left the high furrow very fine and mellow, and it readily works down to a fairly level surface. This field can be sown early, and will stand a lot of drouth and not suffer, providing it has had plenty of cross furrows through the drills to carry off the surplus water, and was also cross-furrowed again after seeding. The extra work given this field will pay well, and also give a fairly clean field. It helps do away with the summer fallow, which is too expensive, necessitating two years for one crop. Life is too short for that.

The roller is a very useful implement, but should be used before sowing. If used after sowing, the harrows should follow it, so as not to leave a smooth surface. Good honest plowing, with well-shaped ridges not over 18 feet wide, with plenty of water-furrows well cleaned out, are great advantages, as the surplus water has to get off very rapidly in order to get the land in shape to make a fine seed-bed, the most essential part in retaining moisture later on for the growing crop, as the grain germinates more quickly, and the top soon helps the roots. But the surplus water has to be gotten off quickly in order to have the land work right, and it must work right when sown, or the crop will suffer if the season is dry.

JOS. DOUGLAS.

Brant Co., Ont.

Fall Plowing and a Fine Seed Bed.

Editor "The Farmer's Advocate":

I cheerfully comply with the editor's request to send in a note of observation in relation to methods of tillage and crops in the present season, which was remarkably warm and dry in our locality during May and June. At this date (June 18th), the oat field on which was grown a big crop of corn last year makes a fine showing both for straw and grain. All excepting a narrow strip on one side was plowed about six inches deep last fall. The oats on the spring-plowed part have not done nearly so well as the rest, though plowed about the same depth and all equally well worked otherwise at seeding time. It was all seeded to clover, and what has arrested my attention particularly is the fact that the catch on the strip plowed in the spring has had a hard struggle, and may yet be a failure, while, on the other portion of the field it has made a splendid start. So far as my observation goes on a clay-loam soil, good fall plowing is the best preparation for spring grain in a dry year, with the most thorough preparation the seed-bed can be given.

OBSERVER.

Middlesex Co., Ont.

GARDEN & ORCHARD.

Citrus Industry in California.—IV. GENERAL CULTURAL AND PACKING-HOUSE METHODS.

By W. R. Dewar.

I have said in a previous article I thought the citrus growers could teach the deciduous fruit-growers points on the general cultural methods employed in their groves; also in packing-house management. This is because they have brought both nearly to the highest state of efficiency possible under present-day knowledge. There are backward growers here as elsewhere, but such are the exception rather than the rule. One eminent horticultural writer has recently said that there are few parts of the world where horticulture has been more highly developed, entered more widely into commerce, and contributed to the welfare of a greater number of people than in Italy and Sicily. He must have had in mind Southern California citrus districts when he excepted a few parts of the world from a general statement.

The citrus groves are variable in size, ranging in general from 5 to 10 acres for smaller holders, to 25 to 50 acres for larger holders. Some companies own from 100 up to 500 acres; a few others a thousand or so acres; and one company, probably the largest in California, owns or operates about 4,000 acres. This latter is a tremendous undertaking, and requires considerable skill in management. It was with this company that the writer spent five months working in their packing-houses and studying the industry as a whole.

Suitable land for orange culture can be secured at from \$200 to \$1,000 per acre, the range depending on several factors, such as freedom from frosts and winds, availability of water for irrigation, inherent qualities of the soil and sub-soil, packing-houses and transportation facilities, congenial locality for a home, and so on. When the groves are in full bearing the price will range from \$500 to \$2,000 per acre, depending also on many factors. Lemon groves are not on the market at present, except at exorbitant prices; this owing to the exceptional prices ruling during the last few years for lemons. Trees are planted 20 to 25 ft. apart. They should begin to crop about the fourth year, give good returns in six years, and come into full bearing in about ten years. It is difficult to say what the net returns per acre usually are or should be. Roughly, if a person pays \$250 per acre for the bare land, his expenses per acre for developing will increase this amount to about \$700 at the end of six years, and to \$1,000 or more at the end of ten years, when the grove is supposed to be in full bearing. During this past season certain very excellent groves have yielded from 700 to 760 picking boxes per acre. Counting 70 trees per acre, this would average 10 boxes per tree. Most groves, I think, will come away under this average, running at 2 to 5 boxes per tree. The net returns from a well-kept orange grove should run from \$100 to \$500 per acre, according to most reports. Actually they do not. The President of the California Fruit-growers' Exchange states that one-third of the orange groves are run at a loss, one-third break even, and one-third produce from a fair to a good profit. It is obvious, then, that the orange industry is not such a lucrative business as it was a few years ago, when \$2,000 was considered a very fair profit per acre. The lemon is the aristocrat at present, and is proving so profitable that a prospective buyer may scan the California daily papers in vain for lemon groves offered for sale, whilst he loses himself in a maze of veritable fortunes awaiting his grasp in orange groves.

In the groves practical completeness in all operations is the first important phase. Begin-

ning with the laying out of a new grove and following through the operations of cultivation, pruning, fertilizing, irrigation, fumigation and picking, everything is done with an effort to get as near perfection as possible. It has been found that this can be best attained by employing capable, experienced and energetic foremen. For labor is of many nationalities. There is the industrious little Jap—industrious so long as you watch him closely, for even he will "slink" work—there is the lazy Mexican, always requiring urging on; there is the garrulous Italian, much given to singing famous operas as he works; the shuffling Chinaman, over-anxious to smoke; the American, Englishman, Swede, Canadian, who all improve under a good "boss." With such mixed material, to get best results, a capable foreman is invaluable. In cases of small groves, the owner often acts as his own foreman, and his profits will depend a great deal on his ability to manage these different classes of men. Completeness in some operations is necessary for success in others. For instance, ground intended for a new grove must be well laid out and levelled so

or September; that cover crops, especially winter vetch, Canada peas and burr clover, are coming into general use as a winter covering and as a means of improving the condition of the soil. So much for the completeness of operations in the groves.

The same factor of thoroughness is noticeable in the packing-houses, but one probably of still greater importance here is the great care exercised in handling the fruit. Lemons are handled "like eggs," because the least bruise is likely to break some oil-cells in the rind, and thus make an opening for the entrance of "blue-mold" spores. This "blue mold" decay is the bane of all lemon shippers. So if the foreman happens not to be in good humor and a workman wishes to hear him "cuss" a little, let him drop a box of lemons; or, better still, accidentally turn over a truckload of six boxes. What might be said is not a fit subject for print. All workmen who handle the fruit in any way must wear thin canvas gloves, which are supplied by the packing-house. This is to prevent finger-nail injury. Anyone who has tried

is to scoop out little chunks of peel when handling oranges or lemons with the bare hands. Field picking-boxes are carefully examined every time they go through the house, and any broken ones, or any with intruding nails, are thrown aside to be mended before being used again. Great care is required in every operation, and the foreman is always wandering around with sharp eyes, ready to pounce upon the first unfortunate who handles the fruit with unnecessary roughness. If he is caught twice, he will very likely get his "time." I have seen rough workmen last but

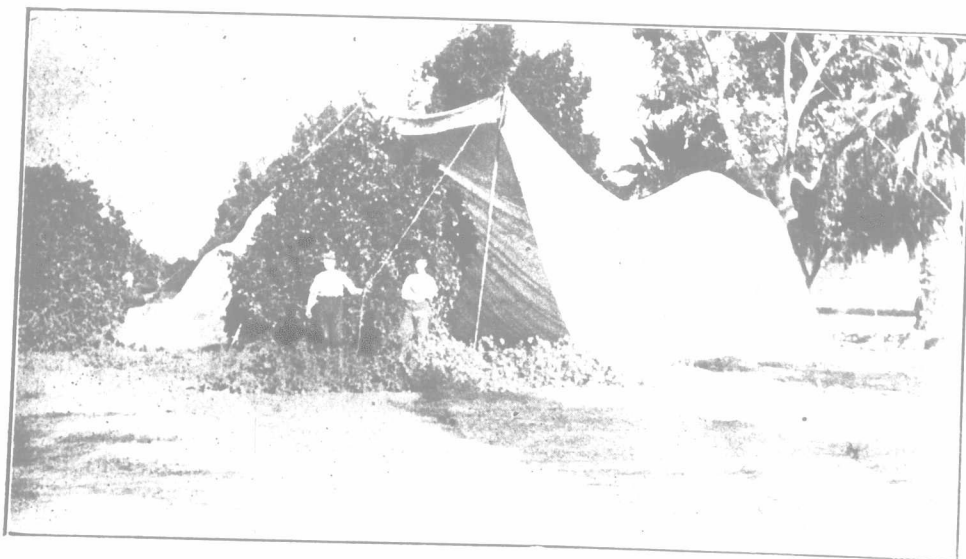


An Irrigation Canal.

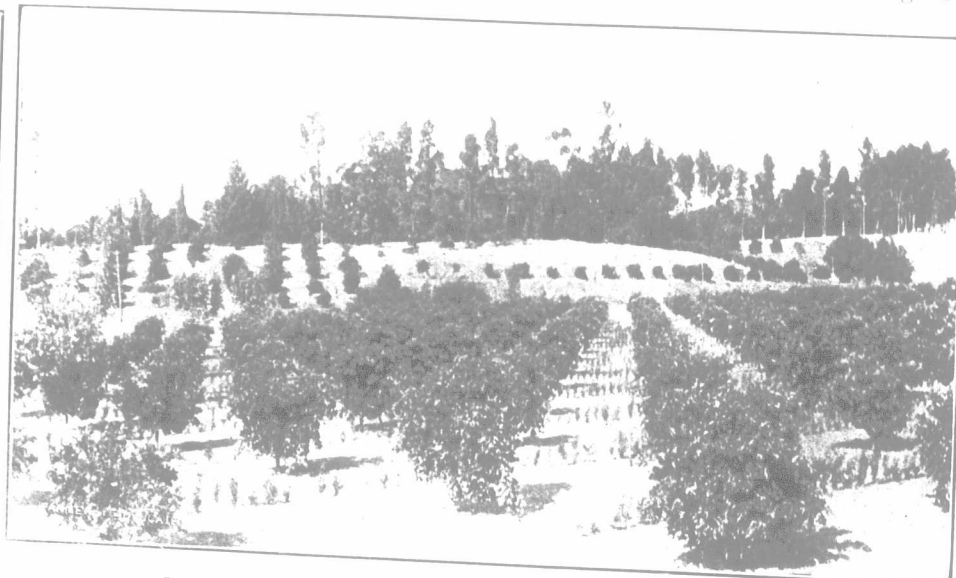
that irrigation may be successfully performed later. Contours must be such that the water will not run too fast in the furrows, for the water is meant to soak into the soil and not simply to run down a hill. Perfection and economy are especially important in this case, as water is the most expensive factor in citrus culture. In other operations thoroughness is absolutely necessary or the money expended is entirely wasted. This is so in fumigation for scale insects with which citrus trees become badly infested. Gangs of four men each are kept busy a big part of the year fumigating scale-infested trees. This is accomplished by covering the tree with a specially-constructed tent, inside of which hydrocyanic acid gas is generated. An underdose is not effective; an overdose will burn the trees; consequently the fumigation supervisor must be active and intelligent to see that the work is carefully and thoroughly done. The principles of fertilizing and of cultivation for the conservation of moisture and liberation of plant food are thoroughly understood. G. Harold Powell, late of the U. S. Department of Agriculture, says that "commercial fertilizers of various kinds are probably used more extensively in Southern California than in any other orchard industry in the country, except in citrus fruit-growing in Florida." The same writer says that "in a general way tillage is frequent and thorough during the season from March to August

one day in a packing-house. The same care must be exercised in picking, and a foreman is placed over every gang of thirty pickers. Each orange or lemon is clipped from the tree by means of specially-constructed clippers, a second clip is made to shorten the stem so that it will not injure other fruit with which it comes in contact, and then it is placed in a stout canvas picking-sack, which is hung over the shoulder and neck and suspended in front or at the side, whichever the picker finds more convenient. When full these sacks are emptied into field or "lug" boxes in which the fruit is drawn to the packing-houses. Every operation is watched by foremen to see that no unnecessary roughness is used in handling the fruit from the time it is picked until it is loaded in the cars ready for shipment.

Another important factor which has done much to establish the reputation of this great citrus industry is the standardization of sizes, grades and shipping boxes. This is more perfectly developed with oranges than with lemons, because their regular shape and the demands of the Eastern trade make it possible and necessary. There is only one size orange box—the standard, 12"x12"x26" outside measurement—if we except the half-boxes, which are mainly used for packing tangerines. There are the regular grades into extra fancy, fancy, extra choice, choice, and standard. There are the regular packs, which are used according to



Orange Tree Fumigation.
Pulling the tents over the tree.



Orange Grove, with Nursery Stock Interplanted.
Residence surrounded by Australian "gum" trees (Eucalyptus).

the size of the orange desired to be packed. Consequently, an Eastern merchant can order a car of oranges and know exactly to a box what he is getting in grade and size. He could bet to an orange how many oranges there would be in the car, and his only chance of losing would be from an error on the part of the car-loader in substituting a box or so of one size in place of another. Even a greenhorn in the business can imagine what great advantage this is to the Eastern trade. Then about 40 per cent. of the citrus fruit of California is sold at public auction in the big cities of the East. How much easier it is for the auction company to sell this fruit when they know exactly what they have got to sell. They could sell a car without opening it if inspection had not to be made for decay. Now, this standardization of pack as carried on by the citrus shippers is a matter of business expediency and not necessarily of moral honesty, for rules for packing are made, and a pig-tailed Chinaman may do the packing. It would be difficult for him to pack wrongly if he wanted to; consequently he packs according to rule, just as he braids his pig-tail, and in neither case is the question of moral honesty introduced. The deciduous fruit-growers of Canada recognized this point when they standardized their fruit packages. The deciduous fruit-growers of California are aiming still higher, and last year began a movement to standardize their packs for cherries, peaches, pears, plums, grapes, etc.

These three factors—Thoroughness in operation, Care exercised in handling the fruit, and the Standardization of packages and packs—impressed me most strongly in the groves and packing-houses.

I might also have mentioned economy in all operations; but this is a variable factor, as very many of the grove owners came to the country as wealthy men, mainly to obtain a congenial home or a climate to build up their health and lengthen their span of years. With companies, however, who operate solely with a view to making a profit for their stockholders, economy is a matter of business expediency, and they practice it with all the energy of a "tight-wad." From general manager down to an aspiring foreman the slogan is: economize; and very often their position depends on their ability to do so. Red ink returns do not pay dividends, and every manager knows that, although glowing romantic stories may sell land at a good price, it requires considerable intelligence and hard work to show a fair profit at the end of a season from the actual working of the land.

The main economy practiced is in hiring capable and energetic foremen. In a packing-house where a large number of hands are employed it is essential that there should be no playing with time. Every minute lost with sixty employees means one hour. The foreman must be on the alert, so that if any machinery breaks he can at once put the hands at some other work until repairs are effected. Similarly the foreman must continually study where he can improve his organization or machinery so as to turn out the best work at the least expense. It is very important to study the best kind of labor for the various kinds of work; for instance, Chinamen make excellent fruit-packers, being speedy and careful; the Japs are best used at hard, steady work, or work that requires quick mental grasp; the Italians are used to best advantage as fruit-pickers; the American makes the best teamster; the Tennessee boy is hard to beat as a "mule-skinner."

Every bit of expense is charged in its proper place, so that the finger can be placed at once on the part that has to be improved. From the time an orange or lemon enters the packing-house until it goes into the car for shipment, the expense of every operation through which it goes is carefully computed. If any part seems too expensive the whole staff of the packing house sets itself to study improvements that might make that part cheaper. That means that every man has to warrant his position, every operation its necessity, and every bit of machinery its full capacity for work.

It is the same on the ranches—in irrigation, in tillage, in pruning, and in picking. The cost of land is really the cost of water, hence the water must be carefully distributed over the land and then carefully conserved. Tillage is carried on with the most modern of implements, and any labor-saving device is adopted. For carrying the fruit from orchard to packing-house motor-trucks are coming into use. The writer has known one truck to haul in as much as four teams, the distance to haul being one mile to a mile and a half. In pruning, the trees are kept low down, as it has been found amongst other advantages that low-pruned trees are more easily and cheaply picked than high-pruned trees. Every expense must be carefully studied when oranges are cheap. But even economy in itself must be limited so that it does not run upon false premises. For instance, how short-sighted it would be for a manager or foreman to insist upon pickers gathering 60 boxes of oranges when 40 is a good average, consistent with careful handling. He might

save a few cents on the picking of each box, but lose many more later on when the fruit reaches its market, owing to increased decay caused by rough handling in picking. The same false economy may be carried into all branches of the industry, and it takes a good manager to know the dividing line.

The Farm Strawberry Patch.

Many professional strawberry-growers reckon that it is more profitable to start new plantations each spring than to continue the old ones a second year. But this may not always be practicable, nor indeed necessary in the farm garden. If the rows have been kept clean and the plants are numerous and healthy, like those shown in our illustration, they may be left for a second crop, and, in fact, three have been taken off before mak-



Two Strawberry Rows.

ing a change. To be on the safe side, however, it is better to have a strip of rich ground in readiness for new plants early the second season. Just now we are concerned about renewing the old beds so as to insure a good second crop. Too often, weeds and grass have been allowed the right of way in the old plantation, or the plants themselves may be overcrowded. After the picking season, if the weeds cannot be rooted out, then the plan advised by W. T. Macoun, Horticulturist at the Central Experimental Farm, O. M. Taylor, Foreman in Horticulture at the New York Experiment Station, and other specialists, like the Kellogs, of Michigan, is to cut the patch down close with a scythe or mowing machine, and, when sufficiently dry, loosen up and burn over, which will

leave the litter as a mulch, but most experts advise removing it. They next narrow down the old rows with a plow, cultivator or spade, if the plot be very small, leaving a plant-strip from eight to twelve inches wide. This work is usually finished with a hoe, cutting out ragged or surplus plants. Then apply a good heavy dressing, directly over the row, of well-rotted barnyard manure. If available, a compost of black muck with the manure might be beneficial. Then level down nicely with a rake or harrow-tooth cultivator, so that the crowns will be coated with a fine covering of earth and manure. In a short time a new growth of plants will shoot up through the dressing. Thin out the weaker ones, leaving the best, which will throw out runners like an entirely new patch. If this work is done sufficiently early in the season, strong rows will have developed before the end of autumn, and, as a protection in winter, these should be mulched with short straw or strawy manure.

It may be thought that this is a good deal of trouble, but it is not so serious as it looks, and no small fruit repays generous treatment and care better than the strawberry. In order to see what could be done with a small patch, one of the editors of "The Farmer's Advocate" set out two rows about 150 feet long in the spring of 1910; varieties, Senator Dunlop, Splendid, and Williams. In width, the strip was less than eight feet. The land is drained, and was fairly well manured and worked, but there was nothing unusual in its preparation and care. Owing to the dry, hot May and June, the fruitage was much lighter than it would have been with more frequent showers, and yet the little strip yielded some 230 boxes, or a return at the rate of above \$700 per acre. Specialists have not infrequently reported returns as high as \$1,000 per acre from strawberries, and, from the foregoing such crops are quite possible, while at the same time realizing a maximum of net profit.

With regard to the three varieties tried, the Senator Dunlop made the best showing. It is a rank grower in plant and foliage, and as a bearer does not seem quite as prolific as the Splendid, but the berries are larger and very much finer, and they ripen a rich red to the tip, which cannot be said of the Williams, though the latter has a good reputation as a general-purpose fruit. In the engraving, the Dunlop rows are those in the foreground. A particularly good feature of the latter is that they carry the berries well up on the stems, which are therefore clean and entirely free from sand.

A bulletin has just been issued by the United States Department of Agriculture, entitled, "The Relation of Handling to Decay in California Navel Oranges, Season of 1910-11." The blue-mold decay has been worse this year than formerly. Investigation showed that mechanically-injured fruit showed sufficiently high percentages of injuries to account for the greater part, if not all, of the loss from decay. The average injury in the different houses examined ranged from 4.8 per cent. to as high

as 53.6 per cent., and injuries made by individual pickers were as high as 85 per cent. Injuries from clipper cuts were most in evidence, but there were also nail and gravel punctures, scratches, etc. Natural defects were very prevalent, but bad handling was responsible for most of the injury. Dry brushing and washing and extra handling increased the amount of decay. Careful handling, business methods, and organization of the industry is the solution of the difficulty.

The accompanying cut, illustrating fruit which was shipped from the St. Catharines district, and arrived in Winnipeg July 11th, and an account of which appeared in "The Farmer's Advocate" of July 20th, shows clearly that refrigerator cars and cold storage have made it possible for the West to get Ontario fruit in good condition, and have been a means of opening up a Western market for such fruit. When cherries will keep in such good condition as these did for a journey lasting seven days, which was two and one-half days longer than the usual time, there is little possibility of experiencing a loss in shipping fruit to the West.



Robt. Thompson, A. Onslow and Mr. Bartiman,

And some of the fruit that came West, reaching Winnipeg July 11. Cherries on the limbs looked as though they were almost fresh from the orchard.

destroy insects and other pests, making a fairly clean start for the next season. The wind ought to be blowing in the direction of the rows, so that the burning will be done quickly. Care must be taken, because, if the weather has been very dry and the soil powdery, the burning may go too deeply, injuring or possibly destroying the crown and roots. If the bed is free from weeds, some

Fruit Reports.

According to the July Fruit-crop Report, issued the 17th of the month from the Department of Agriculture, Ottawa, the prospect for apples has diminished slightly during the month, except in British Columbia, where prospects have improved. The heat and drouth have been most felt in Ontario, where the small-fruit crop has been seriously affected. Rain has come at last, and the outlook is somewhat brighter. New Brunswick, like British Columbia, has enjoyed favorable conditions. The apple crop has stood the heat wave and dry spell very well, but the apples were beginning to drop heavily in some districts, and sun-scald is reported in the Lake Erie and Lake Huron counties. Nova Scotia expects a record crop. Fungous diseases are remarkably scarce. Early varieties in Eastern Ontario promised to be ten days earlier than usual. The early and fall varieties give promise of a medium to full crop, but the winter fruit will be scarce in most districts.

Pears are light in all sections, with the exception of the Montreal district.

Plums promise a fair crop in Ontario, and are good in Nova Scotia and Prince Edward Island, but light in British Columbia. The fruit had begun to drop badly in Ontario, but the rain will help matters greatly.

Peaches have stood the dry weather well, owing to general cultivation. Crawford's are rather light, and "little peach" is in evidence to some extent.

Cherries, as well as the smaller fruits, including strawberries, raspberries and gooseberries, have suffered from the dry spell, and the demand for these fruits has been good.

The United States will have a 55 to 60 per cent. crop of winter apples, 60 per cent. of a full pear crop, and 60 to 70 per cent. of a full peach crop, while Great Britain will only have a fair to medium crop.

The report issued by P. W. Hodgetts, Secretary of the Fruit Branch for Ontario, on July 11th, gives much the same information. The drouth has affected the small fruits almost all over Ontario. Pear blight is very bad in some districts, particularly Newcastle district. The report indicates that more orchards have been cared for this year than ever before, and that these are the orchards which are carrying the fruit, the uncared-for trees having a very poor outlook in most districts. Some districts report that the apples are commencing to drop, but the rains which have since fallen will likely put a stop to this.

Illegal Size of Baskets.

The following item is of great interest to fruit-growers, and deserves careful consideration:

It has been reported to the office of the Fruit Division, Ottawa, that some of the basket manufacturers are turning out baskets under the standard capacity of eleven or six quarts, and they claim that they are imported to do so by certain growers who think they can sell these small baskets of fruit for as much money as the full-sized basket, even though it may, in compliance with the law, be marked ten quarts or five quarts, as the case may be. The object aimed at in the law which fixed the dimensions and capacity of fruit baskets, was to provide a standard package, so that the honest grower should not be placed at a disadvantage by those less scrupulous in such matters, and that the consumer should receive fair treatment by all. The fact that a basket may be marked ten quarts does not convey much to the average consumer, who is not, as a rule, aware of the legal standard size.

The fruit inspectors will watch this matter carefully, and prosecutions will surely follow if undersized baskets are not marked according to the provisions of the law. It would seem to be only fair that the public should be thoroughly educated in this matter, so that they may know when they are being imposed upon. It is in the interest of fruit-growing that all baskets should be of the same size.

POULTRY.

Young chickens should be protected from the rain and dampness. Many chickens are lost each year through getting wet and becoming chilled.

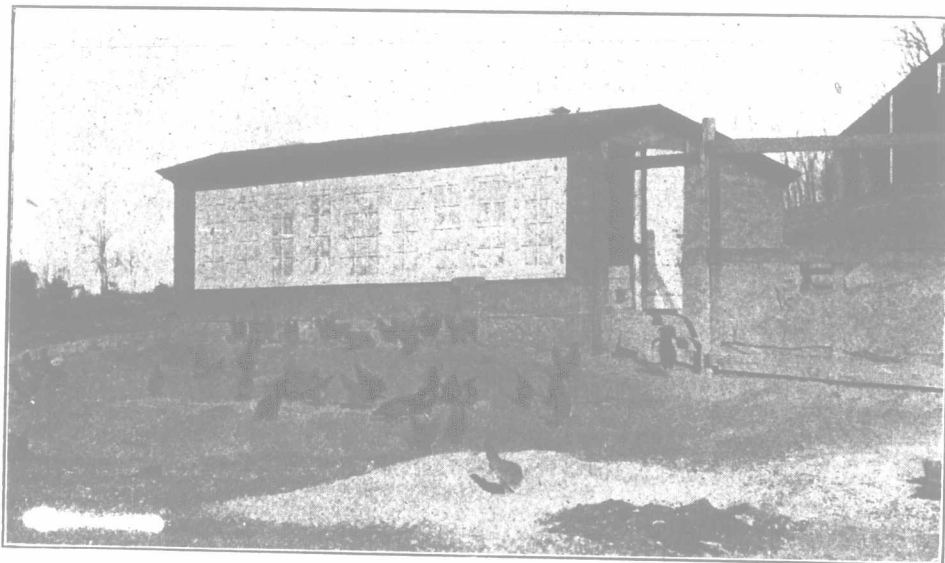
Now is the time that the colony houses are valuable. They can be placed so as to give the chickens free run on the stubble fields, the orchard or the corn fields. Chickens do best when allowed free range, and, by having the run of the fields they pick up a large part of their living, are healthier, and make a more rapid growth.

Ducks which have been kept until this season will make very good growth from running on the stubble fields, and have been known to get quite fat without much extra feed, especially where they have access to a stream or small pond of

water. A good time to dispose of them is soon after harvest, because the longer they are kept, the less will be the net profit.

A New Point in Artificial Incubation.

In the bulletin of the Bureau of Agricultural Intelligence and of Plant Diseases, issued by the International Institute of Agriculture at Rome, in March, 1911, the following appears: "Mr. Sweets, at Huls, near Crefeld, Germany, experimenting on artificial incubation, has been puzzled by the greater evaporation of machine-hatched eggs, as compared with those under hens. Further, his experience has been that generally a higher percentage of chickens is obtained in an incubator when used for the first time, and that succeeding hatches seldom give equal results. After prolonged investigations, he has come to the conclusion that this is due to changes in the wood of which the machine is made, which, by loss of moisture, becomes absorbent. Therefore, during the embryonic stage, and after hatching, the wood attracts the humidity, thus causing enfeeblement, as indicated by death before and after hatching. To counteract this influence, he has covered the inside wood entirely with oilcloth, sides, tray, bottom, etc., and states that doing so has removed the trouble."



A Minnesota Farmer's Poultry-house and Flock.

THE DAIRY.

Composition of Cow's Milk.

Chas. Crowther and Arthur G. Ruston, Department of Agriculture, University of Leeds, England, contribute to the latest volume of "Transactions of the Highland and Agricultural Society," a paper on the variation in the composition of cow's milk with the advance of lactation, based on two years' investigations, covering 33 complete periods with 26 cows. The tests brought out very clearly the fact that the variations may differ greatly with different cows, so that precise generalizations upon the subject cannot be formulated. In general, it was found that the milk is richest in total solids, fat and albuminoids in the earliest and latest stages of lactation, and poorest about the second or third month. The sugar content tends to decrease steadily with the advance of lactation after the first month or so, but the proportion of ash remains approximately constant.

Cost of Milk Production.

Principal Dunstan, of the Agricultural College at Wye, Kent Co., England, has given out the results of an inquiry into the cost of winter feeding in milk production. He notes, as the chief factors in the cost the following: Food, litter, labor in feeding, attendance and milking, illness, calving risks, depreciation in value of cow, interest on capital, expenses (carriage, etc.) on sale of milk; while the returns are sale of milk, value of calf, and value of manure. Mr. Dunstan calls attention to the necessity for keeping individual milk records, and also of making a close study of the kinds and quantities of food that will enable a cow profitably to maintain her maximum of production as long as possible. Upon 66 farms, carrying 2,097 cows, it was found that the average cost of food per day during the period the from 1s. to 1s. 3d., on twenty-one farms; from 1s. 3d. to 1s. 6d. on twenty-three farms, and over 1s. 6d. on twelve farms. The lowest cost per day was 7.8d., the highest 21.1d., and the average 14.88d. These figures show what wide variation there is in the cost of feed, and call attention to what must be extravagant in feeding on some farms. The cost of producing a gallon of milk

on 59 farms was next considered. It was 6d. per gallon on 18 farms, from 6d. to 7d. on 11 farms, 7d. to 8d. on 17 farms, and over 8d. on 13 farms. The lowest cost per gallon was 3.83d., the highest 10.54d., and the average 6.58d. Mr. Dunstan points out that high feeding is not necessarily remunerative. In certain cases, where newly-calved cows are brought in, forced during their milking period, and then sold fat, the feeding has a double object, which is not that of an ordinary milk-producer. In such cases the high feeding may be justified, but in the case of an ordinary dairy cow, which is not a mere penny-in-the-slot machine, in which the more pennies-worths of food you put in, the more gallons of milk you take out, it is necessary to find out her point of economical productiveness and keep her at that. When, however, the results (cost of food per day and per gallon) are combined, the inference is reached that, with a high milk yield, the cost of production of a gallon of milk is less than with a low milk yield. When the basic factor was the cost of food per gallon of milk, on 59 farms, with 1,924 cows, there was a variation all the way from 4.4d. to 9.2d. It is shown that the cost of food per gallon of milk is influenced more by the cost of the daily ration fed to the cow than by the decrease in milk yield.

An examination of the figures from 60 farms and 2,038 cows shows that where an average quantity, 20.3 lbs. of hay was used on 22 farms and 519 cows, the daily cost of the cows' ration was 17.4d., and the cost of production of a gallon of milk 7.77d.; whereas, on 30 farms (1,324 cows), where the average quantity of hay was 7.8 pounds, these figures were 13d. and 6.16d., respectively, a reduction of 25 per cent. and 22.3 per cent., respectively. It is probable that the dairy farmer would get equally satisfactory milk yields, at a reduction of cost, if less long hay were fed, and if the bulky fodder consisted of sound straw and chop, with a foddering once a day of long hay.

In the case of concentrated foods, undoubtedly too much reliance is placed on the effects of these foods on both quantity and quality of milk yield, and too little accurate knowledge is obtained of the individuality and capabilities of the cow. Given a cow whose performances at the pail, as evidenced by the fat content and weight of her yield, are unsatisfactory, no amount of high feeding will make a substantial difference in these respects, and the money spent in concentrated foodstuffs will be wasted, unless her previous feeding has been ill-balanced and uneconomical. It is, of course, an axiom in the feeding of dairy stock with concentrated foods, that such foods should be reduced in quantity, according to the decline in the milk yield.

CONCLUSIONS.

Summing up the conclusions from this preliminary inquiry, the following points are worth consideration:

1. The exceedingly wide variation (a) in the cost of the daily ration fed; (b) in the cost of production per gallon of milk.
2. The relatively small number of farms on which it is a regular practice accurately to record milk yields (18 farms out of 60).
3. The unnecessarily large quantities of hay and roots which are fed (13 farms were found to feed more than 100 pounds of roots per cow per day).

It is not to be expected that a ration in the form of a "prescription" can be advocated, as one suitable for all cattle, all soils, and all conditions. Each man must judge for himself the foods which he can utilize to the best advantage and calculate the cost of his daily ration, watching his cows to ascertain whether the live weight is being greatly increased or decreased. But all this care will be of little use, unless the farmer at the same time keeps a record by daily or weekly weighing of the milk yield of each cow in his herd; and this practice cannot too often be insisted upon, as not only does the farmer thereby know which cows are profitable, but by saving calves from these cows got by a bull of good milking strain, he can improve the milk yield of his herd, and consequently his own profits, without any extra expenditure on food stuffs, merely causing a very little extra labor, which is, after the custom of weighing has been in force for a week or so, negligible, and which stimulates the

milkers to a beneficial rivalry in comparing the performances of the cows with which they have to deal.

APIARY.

Short Ontario Honey Crop.

The Honey Exchange Committee of the Ontario Beekeepers' Association report that the extreme drouth has shortened up the white-honey harvest to a very considerable extent. Reports received from all counties of the Province show a decided falling off in the crop, with the exception of Middlesex and a few apiaries in other central western counties. The average yield per colony is 50.6, as against 58.3 in 1910, which would mean a reduction of at least 1,000,000 pounds in the total crop. Entire failures of the crop are commonly reported this season, and the average is lower than for many years past. A later report will be sent out to cover buckwheat honey. Taking into consideration the practical failure of the small-fruit crops, the high prices of cherries, only a fair crop of apples, and the reduction in the supply of white honey both in Canada and the United States, the Committee would recommend the following prices for the year: No. 1 light, extracted (wholesale), 11 to 12 cents per pound; No. 1 light, extracted (retail), 13 to 15 cents per pound; No. 1 comb (wholesale), \$2.00 to \$2.60 per dozen; No. 2 comb (wholesale), \$1.50 to \$2.00 per dozen.

THE FARM BULLETIN.

A Sound and Prosperous Empire.

At a farewell luncheon in London, England, to representatives of the overseas dominions, a special message was given them from the King. Premier Asquith said they would carry away the abiding impression that the heart of the Empire was not in a dying state. "Wherever you have been you have seen abounding evidence of its vitality and progress in all social, industrial and other walks of our common life. You will all go to your various dominions and colonies of the King feeling that there is an identity in the ideals and aims between different parts of the Empire, quite independent of all political parties which constitutes the abiding safeguard of the Empire. Unity, local patriotism and Imperial loyalty are said to be the characteristic feature of the conditions of our Empire. Some people think it is an accident, some think it is a miracle. It is enough for you and me, as good, true and loyal subjects of the King to recognize in it, as everyone must feel, the best solution which the political genius of mankind has yet provided."

Hon. A. J. Balfour, Leader of the Opposition, said: "I associate myself absolutely with the Premier in what he has said in an optimistic vein, in a vein of true optimism, with regard to the vigor and vitality of every part of the Empire. We are not a decadent Empire, and we in this country are not a decadent part of the Empire. We in the Motherland are personally ready to bear all the weight and all the responsibility belonging to our position, and we know that there is an eager, growing sentiment in every part of the Empire that we should not bear that burden alone."

Rural Mail Delivery.

Editor "The Farmer's Advocate":

Since the establishment of rural-mail delivery, I have noticed very little either of approval or criticism of the system, yet it is a convenience long sought and only half-expected by farmers. Although we obtained only a partial system, yet it is undoubtedly of great benefit, and more generally prized by its beneficiaries, we believe, than the rural telephone. Among the incidental advantages not generally mentioned are the carrying of passengers and parcels, and the pleasure of knowing who owns a particularly well-kept place as we pass along the route. But we have also found that it is not always safe to affirm that so and so lives at a certain place because we see his name on the post box at the gate, for not infrequently the farm changes managers without the box changing names. I often wondered why the boxes were not numbered, instead of being named, and concluded at last that the Government thought it wise to inform the traveller who was who, but to make the information more correct, it should require change of names on the boxes. I notice, however, that mail matter frequently goes wrong where there are two with names nearly alike; e.g., the same surname, but different christened names. I have never noticed two exactly alike, and presume that would be avoided in some way. In cases where these mistakes occur, it would seem advisable to add numbers to the boxes, or else devise some method of improving the observation faculties of the couriers. Where the mail has to be conveyed from a "corner" by

neighbors, letters are sometimes lost, and, if in winter, generally remain thus till spring. Strange that offences of this kind occur more frequently than when the mail was brought from the office by the same means.

There seems to be a tendency for the Department to extend routes from the town of not more than twenty miles, making a half-day trip for the courier who lives in the town. This will do away with the rural-mail man. This is another instance of centralization, and there would seem to be no need of the rural post office. In fact, there will soon be no occupations outside of a town or city, except farming, horse-shoeing, grain-crushing, teaching and preaching. J. H. BURNS.
Perth Co., Ont.

Weeds.

Editor "The Farmer's Advocate":

This subject should attract the attention of every farmer at this season. "Eternal vigilance is the price of safety," so, also, is a knowledge of weeds and when to combat them. Spring-time and early summer have been given too much prominence as the time to keep the hoe and scuffer going.

This system I do not decry, but I wish to draw attention to the greater effectiveness of late summer and fall cultivation to check the development of seed and succulent roots for the next season's weed crop. In the past, to destroy the weeds growing in the corn, potatoes and root crops, the continuous stirring of the soil and pulling of weeds was considered necessary to save the crop from being smothered and, as soon as the growing crop was sufficiently advanced to hold its own, there was practically a total neglect of weeds, which were left to develop seeds or roots to again infest the ground next season. Every farmer and gardener should know that every weed kept from seeding lessens the trouble for next season.

As soon as the grain is taken off the field, have the stubble turned over shallow with the

Overcropping the Soil.

"The trouble in Manitoba corresponds closely to the trouble in Dakota. Farmers are overcropping the land. They say they are not, but I tell them fearlessly that they are. They are shipping away the essential element, and they are not returning it. They are taking what they call the fibre from the earth, and the result is the blowing which is witnessed every summer. Then, in addition, there is, as a result of the continual cropping, a fungus which attacks the root of the wheat. These causes will do much to lessen the yield of wheat this year in this province, and the crop will be less than the farmers expect."

This is an expression of opinion from no less an agricultural authority than Professor Thomas Shaw, who has spent practically all his life teaching agriculture and investigating agricultural conditions. Of recent years he has carried on a special agricultural campaign along Jas. J. Hill's railway lines in the North-western States. He spent a few days with the agricultural special train in Manitoba last month, and, after covering a considerable area, was in position to express an opinion as to the status of farming in the Province. Professor Shaw's warning is not a new one. For years this note has been sounded through the columns of "The Farmer's Advocate." In fact, all students of agriculture, who wait to think, hold this opinion. Even rich soil cannot stand continual grain cropping. Plant food and humus are needed, and these sooner or later run short. Reliable estimates count on a 200,000,000 bushel crop this year in the Prairie Provinces, but this return cannot be expected from the same acres a few years hence if all-grain growing is persisted in.—[The Farmer's Advocate and Home Journal.

Summer Seeding of Clover and Timothy.

Just now, when a great many Canadian farmers are wondering what to do with their new seedings of clover and grass, which have been badly scorched by the blistering-hot, dry weather of July, the following suggestions, issued as a press notice by the United States Department of Agriculture, are exceedingly timely. Whether the advice given will apply equally to Canadian latitudes, is a question about which we do not feel perfectly certain. We should suppose that, to be reasonably safe against winter-killing, the clover should be sown earlier than the middle of August. On the other hand, ensuing drouth might prejudice the chances of a vigorous growth. The problem is a vexed one, but the plan suggested would seem to be at least worthy of a trial on a small scale. We print below the article as received, and commend it to the careful consideration of observant readers:

"The clover and grass seed sown this spring in wheat, rye and other grain has been parched up and killed, either wholly or in part, on thousands of fields in the Central Western and Northern States. This is a serious situation, and calls for prompt attention. If the clover is not replanted, it means no clover hay next season, and the planting of some substitute crop for hay next spring, at considerably increased expense, will probably be necessary. Not only that, but the failure of the clover crop means the loss of the green-manuring crop in the rotation, and a disarrangement of the whole farm plan of crop rotation. The situation should be met at once. Every piece of new seeding should be examined, and, if it has been burned up, steps taken to replant it at once. One of the best ways known to get a stand of clover is to disk the stubble field as soon as the grain is off, allowing the disk to run about three inches deep, and working the stubble into the soil. The disking and cross-disking should be sufficient to clean it of weeds and grass and put the top three inches of soil in fine tilth. Keep the ground cultivated until the first soaking rain, then sow about ten pounds of clover seed mixed with six to eight pounds of timothy per acre, and harrow the seed in. A still better way than harrowing is to sow the grass seed with a grain drill, letting the seed run



A Well-kept Apiary.

gang plow or disk harrow, followed by the common harrow, and, if the soil is moist, seeds that have matured will readily sprout, and the biennials and perennials will be weakened in growth.

A few weeks' attention at this time will materially lessen the growth for the coming year.

Annuals may be exterminated in a few years by a proper system of fall culture, as suggested. Some say that charlock, ragweed and wild oats will remain for many years in the ground, without sprouting. This I do not care to dispute, but my experience on clay soil has been that, where wild oats or mustard have been present in seed grain, I have found little trouble in destroying them, and my conclusion is that this great vitality in the seeds referred to is much exaggerated.

In my examination of many badly-infested farms, the owners have told me that the seeds of these weeds would retain their vitality for twenty years, but, upon critical inquiry, found that the infested seed was sown every year; the straw and the hay fed and bedded the cattle, and the unrotted manure was spread upon the fields year after year. Besides, very small plants of these weeds will mature seeds that will grow, and, unless a close observation is made, they will be passed by unnoticed.

The unsightly burdock, the common dock, and many other biennials, are easily killed if attention is only directed to them and they are kept cut below the ground surface. W. WELSH.

down the grain tubes from the grass-seed box, and covering the seed from 1 to 1½ inches deep. By sowing clover and grass seed alone in this manner, without a nurse-crop, it makes much more rapid and vigorous growth than when sown with grain. By disking the land, also, a much better seed-bed is made than could be obtained by plowing, since, when ground is plowed in dry weather, it breaks up lumpy and lies up loose, and is very difficult to work down into a compact seed-bed, such as is essential for the best results with clover and grass seed. In addition, the grain stubble worked into the top soil by disking seems to form a top mulch especially beneficial to clover. This method of seeding clover is becoming quite general in some of the middle Eastern States, where farmers over large sections are giving up the practice of spring seeding with grain, because of frequent failure to catch, and seeding alone after the grain is cut, instead. By this method, clover and grass seed may be sown in the Central and Western States as late as September 15th, and still make a good stand that will not winter-kill, but in the extreme Northern States the seeding should not be made later than August 15th. To summarize, grass seedings in spring grain have been burned out on thousands of farms. Replant now by disking the stubble about three inches deep and sowing clover and grass seed alone, without a nurse crop, by August 15th."

East Middlesex Threshing.

Threshing was in progress, mostly from the stook, in East Middlesex, Ont., last week. In North Dorchester, fall wheat yields ran, in some cases, as high as 30 bushels per acre, and in one instance a sowing of No. 21 O. A. C. barley gave a return of nearly 50 bushels per acre. The highest wheat yield reported thus far was on a Westminster farm, 45 bushels per acre. This is exceptional, but shows the capacity even of old land well handled.

The District Representatives of the Ontario Department of Agriculture in various parts of the Province are to make a tour of inspection in Northern Ontario the first week of August. The party will consist of nineteen Representatives, together with Mr. Putnam, Supt. of Farmers' Institutes, and W. R. Reek, Secretary to the Deputy Minister. The party will leave Toronto July 31st, the first stop being made at New Liskeard. Trips will be taken into the surrounding country on the T. & N. O. Ry. Representative farmers in the various districts will be visited. The Government farm at Monteith will be inspected, and information will be gathered from all available sources. The object of the tour is to acquaint the Representatives with the wonderful possibilities of Northern Ontario, so that they may have first-hand information for inquirers.

QUESTIONS AND ANSWERS.

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

Miscellaneous.

NEW ONTARIO LANDS.

To whom shall I write to get information re New Ontario lands? D. A. B.
Ans.—Donald Sutherland, Director of Colonization, Parliament Buildings, Toronto, Ont.

FALL SEEDING TIMOTHY.

1. Would it be any use sowing timothy seed this fall for hay next year?
2. Would it be better to sow some alsike with it, as I have heard it will do fairly well sowed in the fall?
3. What would you recommend doing for hay next year, as I do not like to leave a field three years for hay, as I will have to do, unless I sow something this fall?
W. C. S.
Ans.—1 and 3. Timothy sown after harvest and harrowed in, should give fair results for hay next year. It would be well to sow it on the land that was seeded last spring, so as to get the advantage of any grass or clover that may have come through the summer all right. If this is not done, cereal hay may have to be tried next year. Oats are good. Millet will make fair hay if well cured.
2. A little alsike might be sown with the timothy as an experiment. It might come through the winter all right, and, if

so, it would improve the hay, especially for cattle feeding, and would also be a good thing for the soil.

VARIOUS QUERIES.

1. I have invented an attachment for a certain farm implement, and intend to apply for a patent. It is so simple that any blacksmith could make it, but I think the manufacturing firms would make use of it. Do you think it would be worth the expense of a patent?
2. We intend to start an egg circle in this community this fall. Could you give me some advice how to go about it, and also how to procure a good market for fresh, stamped eggs?
3. Is there any quick and sure way of telling whether eggs are fresh or not? Can these patent affairs be relied upon?
4. Could a person qualify and get a thorough enough knowledge to buy grain, by taking the two week's course in seed judging at the O. A. C.?
J. S.

Ans.—1. The simplicity of anything does not determine whether or not it would pay for being patented. Some of the very simplest devices have made wealthy men of their inventors. If the manufacturing firms would make use of it, and it is something which would be largely used, it should be profitable to get it patented.
2. Egg circles are started by people living in a section forming themselves into a band, or grange, with a president, secretary-treasurer, and board of directors. Most of the circles now in operation work in conjunction with a large produce company which takes the eggs, thus the difficulty of finding a market for such eggs is overcome. There really should be no trouble in finding a market for such high-class produce. The circles are organized as branches of the Poultry-producers' Association, with which they are closely affiliated. Their constitution is

much like that of this association. A membership fee of \$1 per annum is charged by some circles. Get a copy of the regulations from the Poultry-producers' Association, and call a meeting after, first getting the people interested, elect officers, and draft out your rules.
3. Yes; candling. An expert candler can grade eggs very rapidly and accurately. A little practice is necessary to do this, but it is simple and reliable.
4. The two weeks' course in seed judging at the Ontario Agricultural College is a good course, and gives the students much valuable information. It depends largely upon the individual and his previous agricultural training, and how he applies himself, as to whether he would be competent to buy grain after this course. It would be a help in the right direction, and would be valuable to a grain buyer.

FERTILIZING WHEAT.

I am preparing a clover sod field for wheat, and have not enough manure for it. Which is the best fertilizer to use for wheat, how much would you use, and when would you put it on the land if you had not a combination drill? Who are the best manufacturers, and what is the price per ton?
R. M.

Ans.—A clover sod should not require the addition of very much nitrogen in order to grow wheat. In the co-operative experiments with winter wheat carried out by the Experimental Union in 1910, an application of cow manure gave the best results with the complete fertilizer applied at the rate of 213 pounds per acre, next, and giving a yield of about 2 bushels per acre less than the cow manure. The most economical increase in yield was made by the application of a mixed fertilizer, and even in this case the cost of the increased yield was 86 cents

United States Crops.

The United States Department of Agriculture, Bureau of Statistics, Washington, D. C., reports that the month of June was decidedly unfavorable for growing crops in most parts of the United States. The aggregate condition of all crops on July 1st was 10.7 per cent. below the average condition, whereas on June 1st conditions were only 2.8 per cent. under average. Taking into account both acreage and condition, indications are that the wheat crop will be 1.4 per cent. larger than the average production of the past five years, corn 4.9 per cent. larger, oats 12.3 per cent. less, barley 11.6 per cent. less, potatoes 10.8 per cent. less, tobacco 22.7 per cent. less, flax 10.5 per cent. more, rice 5.8 per cent. more, than the average production of the past five years.

Congress Endorses Reciprocity.

After a long-drawn and strenuous battle, reciprocity passed the United States Senate at Washington on Saturday, July 22nd, by a vote of 53 to 27, in the same form as it left the House of Representatives, all amendment being voted down. Its final passage is conceded to be largely due to the great influence of President Taft, who in turn acknowledges the support it received from the Democrats, and says that the action of Congress indicates an increase of mutually beneficial relations between the United States and Canada. His official signature will complete the measure on that side, but, before taking effect, it must be ratified by the Parliament of Canada.

A. McKenny, B. S. A., who has been for four years Representative of the Ontario Department of Agriculture at Essex, Ont., has been appointed Weed Inspector for Alberta, to succeed C. E. Lewis, who has been appointed Superintendent of Fairs and Institutes in that Province. Mr. McKenny has been secretary of the Canadian Corn-growers' Association, which he was largely instrumental in organizing, since its inception, and has devoted much time in the interests of improved corn-growing in Essex County. He has been untiring in his efforts to promote in every way the agricultural interest of that county, and has been most successful in his work. His experience fits him well for his new position in the West, where the weed problem is becoming so serious.

Your paper has been a welcome visitor to our home for a number of years, and we prize it very highly.
Lambton Co., Ont. JOSEPH DOUGLAS.

per bushel. To state with any degree of accuracy a fertilizer suitable for fall wheat or any other crop, it is necessary to know the nature of the soil and its previous treatment. The following makes a fair fertilizer: 350 lbs. acid phosphate, 120 lbs. muriate of potash, and 120 lbs. nitrate of soda per acre. On clover sod, the nitrate could be very well omitted, or only half the quantity applied. Apply the potash and phosphate with half the nitrate of soda broadcast by hand, or with a fertilizer distributor, after seeding the wheat, the other half of the nitrate being applied in the spring. In conjunction with manure, a lighter application would do. The W. A. Freeman Co., of Hamilton, could supply this material and quote prices on it.

DOCKING LAMBS.

We neglected to dock our lambs early in spring, and now they are from four to five months old, and weighing from 50 to 120 pounds. Would there be any danger or risk in docking them now, or when the weather is cooler, if precautions are taken to prevent bleeding, and flies from depositing maggots on the wounds? What would you advise us to apply, or what means might be taken to prevent bleeding to death?
W. & G. G. S.

Ans.—There is some danger of large lambs bleeding to death by being docked. A string tied tightly around the tail, above the place of severing, will generally prevent the loss of too much blood. Flour, or some like substance, placed on the stumps, is also good. Searing with a hot iron will stop bleeding quickly. Would advise waiting until cooler weather to dock them. If done now, some substance as pine tar should be kept on the sores until healed to prevent them becoming fly-blown.

GOSSIP.

Geo. Davis & Sons, of Glengore Stock Farm, Alton, Ont., have sold the two bulls which have been advertised in these columns. Christie Braiden, of Laurel, Ont., got the bull Fair Boy 5th of Glengore, out of Fair Lady 5th of Glengore, by Cochrane of Tweed Hill. He is thirteen months old, and gives promise of becoming a grand bull, having lots of size and excellent conformation. Andrew Watson, of St. Mary's, got the excellently-bred bull, Beaver Hill Valley. This is a bull of great growth and substance, and will make a name for himself in Mr. Watson's herd. Plenty of females are for sale at fair prices and easy terms. The extended drought is likely to make their feed scarce, and intending purchasers will do well to write this firm before buying.

James Douglas, of Caledonia, in changing his advertisement, reports that he has sold the great Duthie-bred bull, Joy of Morning =32070=, to the estate of James Gibb, Brooksdale, Ont. W. E. Gibb, after seeing his calves, yearlings and two-year-olds, was greatly pleased, and chose him to head his herd. Many inquiries about this bull have been made through "The Farmer's Advocate." Though getting along in years, he was just as fresh and smooth as ever, and his calves are excellent. I have never had a Joy of Morning bull calf left on the farm twelve months old without being sold, writes Mr. Douglas. A few of his bull calves are left, and a number of his heifers; also some young cows in calf to him. Mr. Douglas will have a very fine selection of Leicesters to offer, of either sex, including a few very choice imported ones, both rams and ewes, as he is making another importation, which left Scotland July 4th.

FARM FOR SALE.

There will be offered for sale by public auction, at Coulter's Hotel, Cookstown, Ont., on Saturday, August 12th, 1911, at 2 o'clock, a farm consisting of 200 acres, more or less, but said to contain 216 acres, being lot number three, in the ninth concession of the Township of Essa, Simcoe County, and belonging to the estate of the late James F. Dinwoody, of Cookstown. The soil is a good clay loam, with about twenty acres in bush, the balance all cleared and well fenced. A good ten-roomed brick house and three large frame barns, with stone stabling and other outbuildings are on the property. A young orchard just beginning to bear, and a never-failing spring creek are also features of this farm. This is a very desirable property, comfortable, convenient, situated in a good section close to church, school and town. Anyone interested should write the executors, Hon. J. S. Duff, or Annie May Dinwoody, Cookstown, or Fisher & Bell, Solicitors, Alliston P. O., for full particulars.

G. M. Forsyth, North Claremont, Ont., writes that he has sold all of his eight bulls, and a number of his cows and heifers, including all the two-year-olds. Five yearling heifers, including some show stuff, are still for sale. Among his recent sales are: To Robert Cowie, Wilfred, Ont., a Cruickshank Duchess of Gloster bull; to D. Currie, Black's Corners, Ont., a Kilblean Beauty bull, out of the imported cow Beautiful Belle; to Arthur Johnston, Chatham, Ont., a good sixteen-months-old bull; to Alex. Reed, Orillia, Ont., the show bull, Kind Carmen, out of one of the best Kinellar Clementina cows; to Robt. Balfour, Elpline, Ont., another Clementina nine-months bull, out of the best breeding cow in the herd; another ten-months bull to the Lakehurst Agricultural Society; also two other good, useful bulls, to men in the Ottawa Valley; to F. M. Cooper, Claremont, Ont., two good cows and a heifer calf; to W. F. Clarke, of Woodville, Ont., a grand yearling Kinellar Mina that will take her place in the show-ring if cared for; to W. C. Sutherland, of Saskatchewan, N.-W. T., the two-year-old show heifer, Clementina Princess 8th. This is an uncommonly good heifer. Also to P. M. Bredt, of Regina, Sask., the two-year-old McQueen filly, Goldie McQueen, out of Golden Princess (imp.). This is a show filly, and was bought for the purpose of showing at the Dominion Exhibition at Regina.

A little boy's first composition was about a pig. Here it is:

"Pigs are very queer animals. The pig has its uses. Our dog don't like pigs. His name is Nero. Our teacher read a piece one day about a wicked king called Nero. I like good men. My papa is an awful good man. Men are very useful. They have a great many uses which I can't stop to tell them all. This is all I can think of about the pig."

Linlithgow Lass, the famous Clydesdale mare belonging to Dr. McEachran, of Ormstown, Que., and illustrated in "The Farmer's Advocate" of July 18th, was bred by William Neilson, Haining Valley, Linlithgow, Scotland, out of his Sir Everard mare, and sired by the great breeding horse, Everlasting, by Baron's Pride. She was seldom beaten at the best shows of Central Scotland, as seen by the following list of her prizes for four years: She is proving a great breeder. Her two-year-old filly, Lady Hugo, by Sir Hugo, promises to equal her in every respect. She is now nursing a grand foal by Shelborne (14863), by Pride of Blaen (a horse of exceptional bone, feet and action, weighing a ton), which is highly prized by its owner and appreciated by all who have seen it. Winnings as a yearling—First at Falkirk, Stirling, Bathgate and Linlithgow; as a two-year-old, first at Falkirk, Stirling, Bathgate and Linlithgow; second at Highland Society's Show at Peebles; as a three-year-old, first at Bathgate, Falkirk, Linlithgow; second at Stirling; as a four-year-old, third at Kilmarnock, Ayr and Glasgow; first at Falkirk and Linlithgow. First in the brood-mare class at Ormstown, Que., in May, 1911.

CALGARY EXHIBITION.

Four of the six days of Calgary Exhibition were wet, nevertheless the show was well attended, and was a success. In only one class, beef cattle, did entries fall below those of last year, and the entire entry list showed an increase of 600 over that of 1910.

The judges were: Dr. J. Hugo Reed, of Guelph, Ont., Clydesdales, Shires and draft teams; R. E. Drennan, Canora, Sask., Percherons, Belgians and Suffolk Panches; T. Jenkinson, Seven Persons, and R. B. Bevan, Cochrane, Thoroughbreds, ponies, jumpers and hunters; Prof. Cummings, Truro, Nova Scotia, Hackneys, beef cattle and swine; and S. Shannon, Cloverdale, B. C., dairy cattle.

All classes of horses were represented, Clydesdales and Percherons making the largest showing. In Clydesdales, J. A. Turner secured the championship with Ruby Baron, Geo. O'Brien's three-year-old Dunoon being reserve. There were upwards of twenty exhibitors of this breed of horses, the prizes being fairly well divided, with Turner securing the lion's share.

Percherons were out stronger than ever, some nine exhibitors having representatives out. J. C. Drewry's Habitus was champion, and Lane's Imprenable was reserve. The champion stud, stallion and four mares, went to Lane.

Shires were brought out by four firms, Morley J. P. II., owned by F. A. McHugh & Son, being placed champion. Solomon & Cohen had the only exhibit of Belgians, while F. J. Hartall Cheadle, and Archie Jaques, Lamerton, had the only entries of Suffolks.

Hackneys, Thoroughbreds, Standard-breds, and all the light classes, were well represented.

In cattle, the only competition in the beef breeds was in the Shorthorn classes. Strome, and Bryce Wright, De Winton, J. H. Melick, Edmonton; Charles F. Lyall, furnishing the individuals.

Aberdeen - Angus, Herefords, Galloways and Red Polled, were represented by the herds of J. D. McGregor, Simon Downie & Son, W. C. Tees, J. H. & W. E. Elliott, respectively.

The dairy breeds were out in large numbers, Holsteins being shown by Thos. Laycock & Son, Calgary; Michener Bros., Red Deer; I. J. Bateman, Innisfail, and W. J. Tregillus, Calgary. These breeders divided the prize money fairly well. Ayrshires made a good showing, J. J. Richards, Red Deer; Laycock & MacDonald, Calgary; R. Ness, De Winton; A. H. Trimble, Red Deer, and W. T. Shuttleworth, Gaiety Valley, having herds out. Ness secured the championship on females,

with Burnside Bluebell, while Richards' Netherall Douglas was champion male.

B. H. Bull & Son, Brampton, secured all the red ribbons with Jerseys, while Rise Sheppard, Strathcona, took most of the blue ribbons. H. Walker and R. W. Trotter also secured some prizes.

Swine were a good exhibit. T. A. Cox took in two carloads from the East. Brethour was present also with his Yorkshires.

Sheep made a large showing of fair quality, Shropshires bringing out the largest number of entries, while Leicesters, Oxford Downs and Southdowns were well represented, and T. A. Cox had some fine Hampshires.

Poultry, both utility and fancy, was out in larger numbers than ever before, while grain exhibits showed a falling off.

A HIGH-CLASS IMPORTATION OF PERCHERONS.

The first importation of note for 1911 has arrived, and consists of ten stallions and two fillies, all Percherons, brought out by the well-known and popular firm of Hodgkinson & Tisdale, of Beaverton, Ont. Some little surprise was manifested by the Clydesdale men of Ontario when it became known that this noted firm of Clydesdale experts had decided to make an importation of Percherons. The unqualified success of several years past which this firm has enjoyed at the leading Canadian and American shows with Clydesdales of their own breeding and importations, gave them a foremost position among the leading breeders and importers of the continent as fitters and judges of what constituted the ideal in draft horses, and certainly the firm has no intention of giving up the breeding and fitting of Clydesdales, but being convinced that a future for the Percheron in Canada was fast opening up, decided to make an importation of the best procurable in the land of the breed's origin. That they have succeeded is evident to anyone versed in the horse business on an inspection of the lot just landed. Big in size, every one a ton horse and over when developed, with a quality of bone, well-sprung ankles, and big, wide feet, never before seen on this breed of horses in Canada, a class of horses that will be a revelation to very many Canadians who thought that the Percheron horse lacked quality, they are certainly the best lot of that great draft breed ever landed in Canada. Space forbids an individual mention of them all. The numbers given are their numbers in the French Stud-book, although all are registered in Canada. Journal 84820 is a gray two-year-old of wonderful draft character, on a faultless bottom of quality bone, well-sprung ankles and big, wide feet. He is a show colt of a high order, and moves like a machine. Another of high-class show calibre is the three-year-old gray, Involute 82966. When developed, he will easily go over a ton, and is quality all over. Inalter 81502 is a black three-year-old, that weighed 1,800 lbs. before he was 3 years old, immensely stylish, and his underpinning is perfect. He is a great colt. Jusant 86059 is a gray two-year-old, very large, with great style, character, quality and action; a coming champion. Those mentioned are representative of the entire lot. All have clean, flat bone, large feet and properly-sprung ankles, and everyone moves straight and true, with that beautiful springy action. The fillies are an exceptionally choice pair, with superb quality of bone, combined with great scale. One of them, Jerico 86496, was never beaten, although she has many times been shown at the leading shows in France. All are for sale. Parties interested should see this lot without delay. The firm is also, as usual, well stocked up with high-class Clydesdales, including such right choice ones as Imp. Lady Bain, a bay three-year-old, by the noted sire, Faraway Blend. At Toronto last fall in a strong class she was fifth, and at Ottawa third. She is in foal to Prince of Orange (imp.). Another big quality three-year-old is the bay, Miss Fotheringham (imp.), by Argosy. She, too, is in foal to Prince of Orange. Baroness Humphrey (imp.) is a bay two-year-old, by Sir Humphrey. She was third at Toronto last fall, and third at Ottawa Winter Show; a right sweet filly of quality, in foal to Imp. Sir Albert. Another filly of exceptional merit is the bay three-year-old, Cyrene, by the renowned champion, Imp. Royal Baron.

She was first at Ottawa in a strong class, and is in foal to Sir Albert (imp.). Unbeaten all around the circuit was the bay four-year-old, Fanny Forward, by the several-times champion on both sides of the line, Imp. Right Forward. She is a superb mare, with size, quality and action. She is in foal to Prince of Orange. All these are for sale, and are a strictly high-class lot of show fillies. In service in the Clydesdale stud are the two big, flashy-quality stallions, Imp. Prince of Orange and Imp. Sir Albert, the former by the noted Sir Humphrey, dam by Gay Everald, the latter sired by the renowned Sir Hugo, and dam by Up-to-Time. Another nice stallion, Canadian-bred, is Baron Blucher, a bay two-year-old, by the champion, Imp. Royal Baron, dam the noted champion, Moss Rose, by Blucher (imp.). He was twice second at Toronto, smooth to a turn, and has quality to spare. He is for sale. Look up the firm's exhibit at Toronto Exhibition.

TRADE TOPICS.

SHERBROOKE FAIR PRIZE LIST.

The prize lists for the twenty-seventh annual exhibition, to be held at Sherbrooke, Que., September 2nd to 9th, have been issued and distributed, and show a large increase in premiums to be awarded. The total amount of prize money to be divided this year amounts to the large sum of \$22,000, an amount equalled by few other exhibitions in the Dominion. The prize list has been carefully revised, that the money might be apportioned to the best interests of the exhibitors, according to the amount at the board's disposal. Improvements have been made on the grounds, including the erection of several new horse barns. The applications for space in the buildings are coming in rapidly, and the live-stock show promises to be the largest in the exhibition's history. Wm. Morris, K. O., is president, and H. E. Channell, secretary. Copies of the prize list may be had on application to the secretary.

THE INTERCOLONIAL RAILWAY.

The Intercolonial Railway, the people's fast line of the Eastern Provinces, connects the most interesting and largest towns of the East, and passes through a country which is beautiful and picturesque. Such trains as the "Ocean Limited," which runs between Montreal, Quebec, St. Johns, Halifax, and the Sydneys, have made this line famous, and for business or pleasure this railway stands unexcelled. A fast, comfortable, pleasant journey is assured to any who have occasion to patronize this line. Some of the most historic places on the continent are linked by this line of steel. The ancient capital, Quebec, with its frowning citadel, famous shrines, beautiful terraces, and quaint and ancient appearance, together with its historic setting, is but one of the attractive places on this line. Then there is Halifax, with its large harbor, beautiful public gardens, naval dockyards, and scores of other interesting and educative features. St. John, the city of the Loyalists, also has a fine harbor, beautiful seaside parks, where the fresh ocean breezes can be thoroughly enjoyed. All the beauties of Prince Edward Island, rivers, rocks, tides, harbors, towns with their parks, and, indeed, the whole country one natural park, can be reached by this line. Tourists can travel with the greatest comfort through a district of scenic beauty, which can only be thoroughly appreciated by those who have been so favored as to be able to take the trip. Tourists contemplating a trip through Eastern Canada would do well to consult E. Tiffin, General Traffic Manager, Moncton, N. B., or his assistants, or any local city agent, and get their rates. A very complete set of illustrated booklets is issued by the company for distribution, and may be had on application.

"Ah! So that is the oldest inhabitant?" said the city man. "Venerable figure, truly! How do you account for his having lived all these years?"

"Well," a trifle acidly replied the landlord of the Skeedee tavern, "I guess it's 'b'cuz he's never done anything else."

THE CANADIAN BANK OF COMMERCE

ESTABLISHED 1867.

Capital paid-up, \$10,000,000.
Reserve, \$8,000,000.

The Canadian Bank of Commerce extends to farmers every facility for the transaction of their banking business, including the discount or collection of sales notes. Blank sales notes are supplied free of charge on application.

Accounts may be opened at any branch of The Canadian Bank of Commerce to be operated by mail, and will receive the same careful attention as is given to all other departments of the Bank's business. Money may be deposited or withdrawn in this way as satisfactorily as by a personal visit to the Bank.

MARKETS.

Toronto.

LIVE STOCK.

At West Toronto, on Monday, July 24, receipts numbered 105 cars, comprising 2,190 cattle, 480 hogs, 365 sheep, 50 calves, 28 horses; quality of cattle medium to good; exporters slow, at about steady prices; butchers' brisk, at steady to strong prices; milkers, \$40 to \$65, and one at \$70; veal calves firm, at \$4 to \$8.75. Sheep—Ewes, \$3.50 to \$4.50; rams, \$3 to \$3.50; lambs, \$6.50 to \$8.25. Hogs, \$7.85 fed and watered at market. Export steers, \$5.60 to \$6; butchers' steers and heifers, \$5.35 to \$5.90, and a few picked cattle at \$6.

REVIEW OF LAST WEEK'S MARKETS

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

	City.	Union.	Total.
Cars	193	262	455
Cattle	2,078	3,551	5,629
Hogs	4,564	4,712	9,276
Sheep	3,421	1,131	4,552
Calves	618	98	716
Horses	1	157	158

The total receipts of live stock at the two markets for the corresponding week of 1910 were:

	City.	Union.	Total.
Cars	162	164	326
Cattle	2,251	2,629	4,880
Hogs	2,783	2,083	4,866
Sheep	2,482	619	3,101
Calves	491	143	634
Horses	1	160	161

The above figures show an increase in the combined receipts of the two yards of 129 carloads, 749 cattle, 4,410 hogs, 1,451 sheep and lambs, 82 calves; but a decrease of 3 horses, compared with the corresponding week of 1910.

At the commencement of the week, trade in exporters was slow, at about 10c. per cwt. decline in prices, while butchers' cattle sold at about 15c. per cwt. higher, which conditions prevailed during the entire week, only that butcher's cattle were if anything a little stronger, while exporters remained about steady.

Exporters.—Export steers sold at \$5.60 to \$6.05, and one extra choice load at \$6.25.

Swift & Co. bought 102 steers for London, 1,350 lbs. each, at \$5.95 average, or a range of \$5.90 to \$6; also 193 steers for Liverpool, 1,275 lbs. each, at \$5.87, or a range of \$5.80 to \$5.95.

Morris & Co. bought 72 steers for London, 1,356 lbs., at \$5.92 average, or a range of \$5.87 to \$6; also 60 steers for Liverpool, 1,250 lbs., at \$5.61, or a range of \$5.60 to \$5.75.

Butchers.—Prime picked butchers' sold at \$5.90 to \$6.10; loads of good, \$5.65 to \$5.85; medium, \$5.30 to \$5.55; common, \$5 to \$5.25; cows, \$3.50 to \$5; bulls, \$4.25 to \$5.

Stockers and Feeders.—Receipts light, but quite equal to the demand. Steers,

800 to 900 lbs., \$5 to \$5.40; stockers, \$3.75 to \$4.50.

Milkers and Springers.—In the absence of buyers from Montreal and Quebec, the trade for milkers and springers was dull, at a decline of about \$10 per head at the close of the week. Prices ranged on Thursday's market from \$30 to \$60 each, with few reaching the latter figure.

Veal Calves.—Prices remained steady to firm, at \$4 to \$8.50 per cwt.

Sheep and Lambs.—The lamb trade was irregular. On Tuesday, about 2,000 lambs came on the City market, as the result of high prices of the previous week, the result being a drop of 4c. to 5c. per lb. On Thursday, the market was strong again, at \$7 to \$8 per cwt. Sheep sold at \$3.50 to \$4.50 per cwt. for ewes, and \$5 for yearlings; rams sold at \$3 per cwt.

Hogs.—The market was strong all week for hogs, and closed about 25c. per cwt. higher than at the beginning of the week. Selects, fed and watered, sold at \$7.75 to \$7.85 at the market, and \$7.25 to \$7.35 f. o. b. cars at country points, the bulk being bought at \$7.25 to \$7.30 f. o. b. cars.

BREADSTUFFS.

Wheat.—No. 2 red, white or mixed, 80c. to 82c., outside points; new, 75c. to 78c. Manitoba wheat—No. 1 northern, \$1; No. 2 northern, 97c.; No. 3 northern, 94c. Oats—Canadian Western No. 2, 41c.; No. 3, 40c., lake ports; Ontario No. 2, 39c.; No. 3, 38c., outside. Barley—For malting, 60c. to 65c.; for feed, 55c. to 57c., outside. Corn—American No. 2 yellow, 66c., on track, Midland. Peas—No. 2, 79c. to 80c., outside. Rye—No. 2, 70c. to 72c., outside. Buckwheat—50c. to 52c., outside. Flour—Manitoba flour—First patents, \$5.10; second patents, \$4.60; strong bakers', \$4.40. Ontario 90-per-cent. winter-wheat patents, \$3.35, seaboard.

HAY AND MILLFEED.

Hay.—Baled, in car lots, track, Toronto, No. 1, per ton, \$13.

Straw.—Baled, in car lots, track, Toronto, \$6 to \$6.50.

Bran.—Manitoba bran, \$21 in bags; shorts, \$23; Ontario bran, in bags, \$22; and shorts, \$23.50.

COUNTRY PRODUCE.

Butter.—All grades of butter were about 1c. per pound firmer the past week. Creamery rolls, 23c. to 24c.; creamery solids, 23c.; separator dairy, 20c. to 21c.; store lots, 17c. to 18c.

Cheese.—New, large, 12c.; twins, 12c.; old, 14c. for large, and 15c. to 15c. for old twins.

Eggs.—Market firm, at 20c. per dozen, case lots.

Beans.—Broken lots are reported a little firmer, at \$1.90 to \$1.95 for hand-picked.

Potatoes.—New potatoes were sold at \$5.50 to \$5.75 per barrel, out of store.

Honey.—Prices unchanged, at 10c. to 11c. for choice extracted in jars or tins.

Poultry.—Chickens alive, 18c. to 20c.; dressed, 22c. to 24c.; hens, 12c. to 13c.; dressed, 13c. to 14c.; ducks alive, 12c. to 14c., and 16c. to 18c. dressed, for wholesale lots.

HIDES AND SKINS.

E. T. Carter & Co., 85 East Front street, have been paying the following prices: No. 1 inspected steers and cows, 12c.; No. 2 inspected steers and cows, 11c.; No. 3 inspected steers, cows and bulls, 10c.; country hides, cured, 11c.; green, 10c.; calf skins, 12c. to 15c.; lamb skins, 25c. to 50c. each; horse hides, No. 1, \$3; horse hair, per lb., 33c.; tallow, No. 1, per lb., 5c. to 6c.; wool, unwashed, per lb., 11c. to 14c.; washed, 18c. to 20c.; rejects, 14c. to 15c.

FRUITS AND VEGETABLES.

The Dawson-Elliott Company, wholesale fruit, produce and commission merchants, corner West Market and Colborne streets, report prices as follows: Receipts moderately large for the past week, but scarcely equal to the demand. Raspberries, 10c. to 13c.; cherries, 11-quart basket, \$1.35 to \$1.50; red currants, \$1.25 per basket; gooseberries, \$1.25 per basket; Lawton berries, 14c. to 16c. per quart basket; Canadian head lettuce, 30c. per dozen; cucumbers, basket, 60c. to \$1; Canadian wax beans, basket, 50c. to 60c.; Canadian tomatoes, basket, 90c. to \$1.50; watermelons, each, 35c. to 60c.; Spanish onions, \$3.50 per case.

Montreal.

Live Stock.—Shipments of cattle from the port of Montreal for the week ending July 15th, were 2,536 cattle and 288 sheep, against 2,892 cattle the previous week. On the local market, several carloads were taken for Quebec. Prices ranged around 6c. for choice steers, fine selling at 6c., good at 5c. to 5c.; medium at 4c. to 5c., and common down to 3c., a lower figure being paid for some common bulls and cows. An increase of \$1 a head took place last week in lambs, sales being made at \$4 to \$6 each. Sheep were steady, at \$3.50 to \$4 each. Hogs advanced 1c. to 1c. Prices range from 7c. to 8c. per lb., weighed off cars.

Horses.—There has already been some purchases of horses on the part of lumbermen, and these will be shipped as quickly as possible to the woods in preparation for the winter's work. The following prices show very little change: Heavy draft horses, weighing from 1,500 to 1,700 lbs. each, \$300 to \$350; light draft, 1,400 to 1,500 lbs., \$225 to \$300; light horses, 1,000 to 1,100 lbs., \$100 to \$200; inferior, broken-down animals, \$50 to \$100 each, and choicest carriage and saddle animals, \$350 to \$500 each.

Dressed Hogs.—The market for dressed hogs showed a decidedly stronger tone in sympathy with the advance in the price of live hogs. Sales of selected fresh-killed, abattoir-dressed stock were being made at 10c. to 10c. per lb.

Eggs.—The weather has moderated considerably, but the quality of the receipts were, in some cases, simply awful. One firm reported 52 dozen broken, rotten and moulded eggs, out of 90 dozen, this being the largest proportion of destroyed stock ever received. Apparently 20 per cent. destroyed is a fair average just now. The cost was about 14c. in the country. These eggs were sold here at 21c. for straight candled, the rotten and broken being taken out. Selected stock sold at 23c. to 24c.

Butter.—In the country, purchases of good stock have been made at 22c. to 23c. At the present time, however, dealers hardly know where they are, and they are not making any very rigid quotations. Shipments to date this year are 25,000 packages, or about five times more than a year ago.

Cheese.—Shipments of cheese to date amount to 614,000 packages, or 9,000 more than a week ago. During the past few days the market was strengthened up considerably, owing to the higher prices paid in the country. Fine Westerns are quoted by some at 11c. to 11c. here, and Easterns at 11c. to 11c. Owing to the fact that higher prices were paid in the country, others are asking 1c. more than these figures, as high as 12c. being demanded by several holders. The market was unsettled.

Grain.—No. 2 Western oats were quoted at 42c. to 43c. per bushel, car lots, export; No. 1 extra feed at 41c. to 42c.; No. 3 Canadian Western, 41c. to 41c.

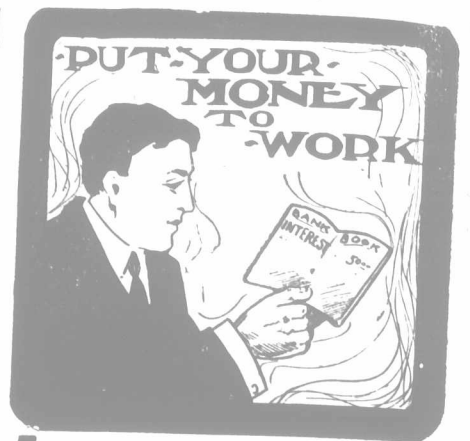
Hides.—Dealers are now offering 9c., 10c. and 11c. per lb., according to quality, for beef hides; lamb skins, 30c. each; calf skins, 13c. per lb. for No. 2, and 15c. for No. 1; horse hides, \$1.75 to \$2 each. Tallow was steady, being 6c. to 7c. per lb. for rendered, and 1c. to 4c. for rough.

Cheese Markets.

Watertown, N. Y., 11c. to 11c. Farnham, Que., butter, 22c. Stirling, Ont., 11c. Campbellford, Ont., 11c. to 11c. Madoc, Ont., 11c. Kingston, Ont., 11c. Brockville, Ont., 11c. to 11c. Vankleek Hill, Ont., 11c. to 11c. Iroquois, Ont., 12c. Brantford, Ont., 11c. to 11c. Napanee, Ont., 11c. to 11c. Victoriaville, Que., 11c. to 11c. Cowansville, Que., 11c. to 11c. Watertown, N. Y., 11c. to 11c. St. Hyacinthe, Que., 11c. to 11c. London, Ont., 12c. Belleville, Ont., 12c. to 12c. Canton, N. Y., 11c.

British Cattle Markets.

John Rogers & Co., Liverpool, cable States and Canadian steers making from 12c. to 13c. per lb.



AT THE BANK OF TORONTO

Hidden Treasures

are unprofitable; do not bury your money or keep it idle in the house. Deposit it in the Bank of Toronto Saving Department, where it will grow. Interest is added to all Savings Balances twice a year.

Total Assets - \$50,000,000
Head Office, Toronto, Can.

Chicago.

Cattle.—Beeves, \$5 to \$7; Texas steers, \$4.50 to \$6; Western steers, \$4 to \$5.90; stockers and feeders, \$3 to \$5.30; cows and heifers, \$2.20 to \$5.85; calves, \$5.25 to \$7.75.

Hogs.—Light, \$6.65 to \$6.85; mixed, \$6.30 to \$6.82; heavy, \$6.10 to \$6.80; rough, \$6.10 to \$6.35; good to choice heavy, \$6.35 to \$6.80; pigs, \$5.50 to \$6.45; bulk of sales, \$6.50 to \$6.75.

Sheep.—Native, \$2.60 to \$4.65; Western, \$3 to \$4.70; yearlings, \$4.30 to \$5.60; lambs, native, \$3.75 to \$7.35; Western, \$4.50 to \$7.75.

Buffalo.

Cattle.—Prime steers, \$6.50 to \$6.60; butcher grades, \$3.50 to \$6.30.

Calves.—Cull to choice, \$5.25 to \$8.25.

Sheep and Lambs.—Choice lambs, \$7 to \$7.25; cull to fair, \$5 to \$6.75; yearlings, \$5.25 to \$5.75; sheep, \$2 to \$4.75.

Hogs.—Yorkers, \$7.10 to \$7.15; pigs, \$6.75; mixed, \$7.10 to \$7.15; heavy, \$7.10 to \$7.15; roughs, \$6 to \$6.10; stags, \$5 to \$5.50.

TRADE TOPIC.

UNITED IMPLEMENT SELLING.—By mutual understanding, the sales organization of the Cockshutt Plow Co., Limited, and Frost & Wood Co., Limited, have been united. The Cockshutt Company take all the territory in Canada west of Peterborough, and will act as sole agents for the Frost & Wood Company. The Frost & Wood Company will take over all territory east of Peterborough in Ontario, Quebec, and the Maritime Provinces, and will act in that territory as sole agents for the Cockshutt Company. It is claimed this will build up a much stronger sales department at the minimum of expense, that it will secure for the companies the best local representatives where full lines of implements and repairs will be carried for local customers. The two companies now operate very large manufacturing plants at Brantford and Smith's Falls, Ont., to both of which large additions are about to be made. They also have large distributing branches and offices at Smith's Falls, Ottawa, Montreal, Quebec City, St. John, N. B.; Truro, N. S.; Charlottetown, P. E. I.; Brantford and London, Ont.; Winnipeg and Brandon, Man.; Regina and Saskatoon, Sask.; Edmonton and Calgary, Alta.; New Westminster and Victoria, B. C.

"I want to 'get this check cashed,'" said the young matron, appearing at the window of the paying teller.

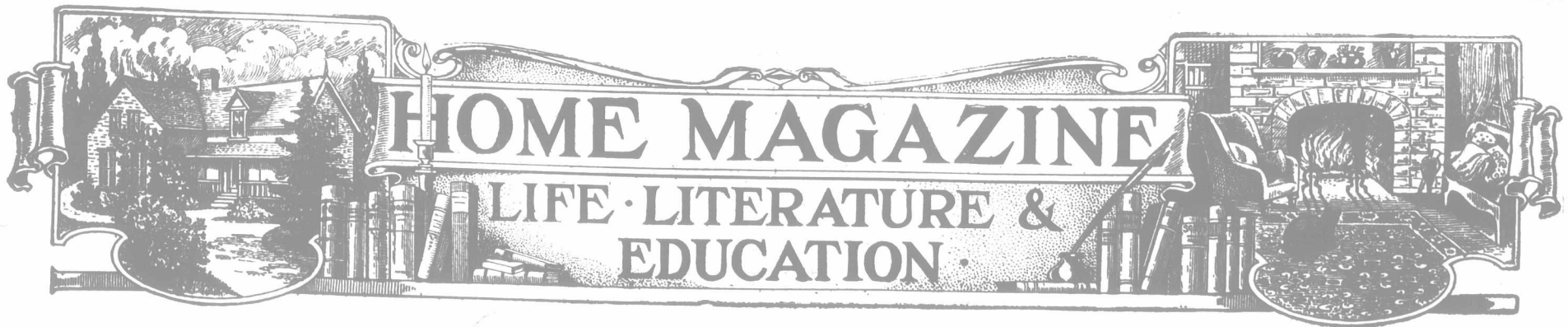
"Yes, madam. You must endorse it, though," explained the teller.

"Why, my husband sent it to me. He is away on business," she said.

"Yes, madam. Just endorse it, sign it on the back so we will know and your husband will know we paid it to you."

She went to the desk against the wall, and in a few moments presented the check, having written on its back:

"Your loving wife, Edith."



Among the Great Writers

From Ruskin.

"If in our moments of utter idleness and insipidity we turn to the sky as a last resource, which of its phenomena do we speak of? One says it has been wet, and another it has been windy, and another it has been warm. Who, among the whole chattering crowd, can tell me of the forms and the precipices of the chain of tall white mountains that girded the horizon at noon yesterday? Who saw the narrow sunbeam that came out of the South, and smote upon their summits until they melted and mouldered away in a dust of blue rain? Who saw the dance of the dead clouds when the sunlight left them last night, and the west wind blew them before it like withered leaves? All has passed, unregretted as unseen; or, if the apathy be ever shaken off, even for an instant, it is only by what is gross, or what is extraordinary; and yet it is not in the broad and fierce manifestations of the elemental energies, not in the clash of the hail, nor the drift of the whirlwind, that the highest characters of the sublime are developed. God is not in the earthquake, nor in the fire, but in the still, small voice."—Modern Painters, Vol. I.

"All the lecturings, and teachings, and prizes, and principles of art in the world, are of no use, so long as you don't surround your men with happy influences and beautiful things. It is impossible for them to have right ideas about color unless they see the lovely colors of Nature unspoiled; impossible for them to supply beautiful incident and action in their ornament, unless they see beautiful incident and action in the world about them. Inform their minds, refine their habits, and you form and refine their designs; but keep them illiterate, uncomfortable, and in the midst of unbeautiful things, and whatever they do will still be spurious, vulgar, and valueless."—From The Two Paths.

"In looking back from the ridges of the Hill Difficulty in my own past life, and in all the vision that has been given me of the wanderings in the ways of others—this, of all principles, has become to me surest—that the first virtue to be required of man is frankness of heart and lip."—On the Old Road.

"It may be proved, with much certainty, that God intends no man to live in this world without working, but it seems to me no less evident that He intends every man to be happy in his work. It is written, 'In the sweat of thy brow,' but it was never written, 'In the breaking of thy heart,' thou shalt eat bread. . . . Now, in order that people may be happy in their work, these three things are needed. They must be fit for it. They must not do too much of it, and they must have a sense of success in it, that so much work has been done well and fruitfully, whatever the world may say or think about it."—Pre-Raphaelitism.

"So much pains you shall take—so much time you shall wait; that is the law. Understand it, honor it, with peace of heart accept the pain and attend the hours; and as the

husbandman in his waiting you shall see, first the blade, then the ear, and then the laughing of the valleys."—Cestus of Aglaia.

"For all noble things the time is long and the way rude."

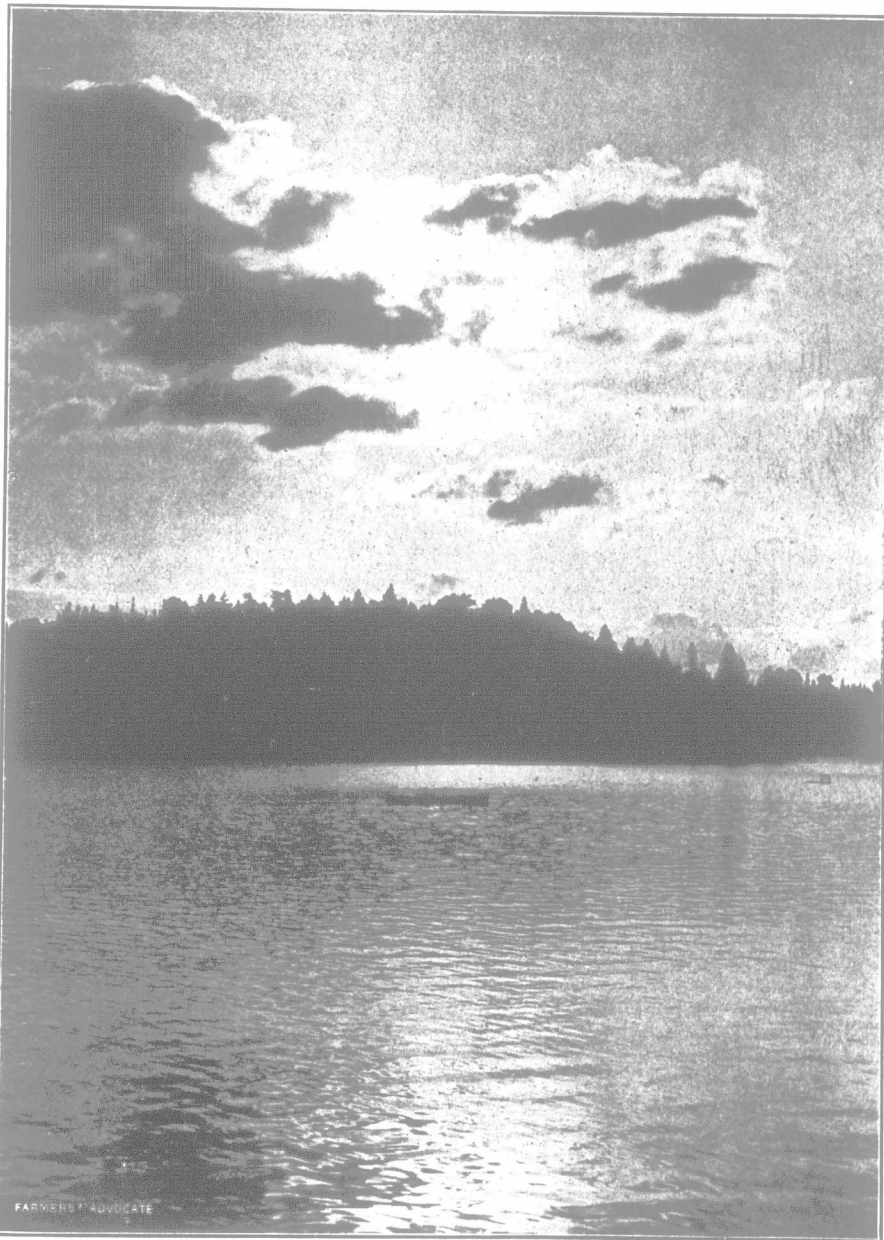
"I suppose few men now living have so earnestly felt—none certainly have so earnestly declared—that the beauty of Nature is the blessedest and most necessary of lessons for men; and that all other efforts in education are futile till you have taught your people to love fields, birds, and flowers. Come, then, my benevolent friends, join with me in that teaching."—On the Old Road.

FROM "STONES OF VENICE."

"We are always in these days endeavoring to separate the two; we want one man to be always thinking, and another to be always working, and we call one a gentleman and the other an operative; whereas, the workman ought often to be thinking,

that we see, or do, we are to desire perfection, and strive for it, we are, nevertheless, not to set the meaner thing, in its narrow accomplishment, above the nobler thing, in its mighty progress; not to esteem smooth minuteness above shattered majesty; not to prefer mean victory to honorable defeat; not to lower the level of our aim that we may more surely enjoy the complacency of success. But, above all, in our dealings with the souls of other men, we are to take care how we check, by severe requirement or narrow caution, efforts which might otherwise lead to a noble issue; and, still more, how we withhold our admiration from great excellences, because they are mingled with rough faults."

"I believe that stars, and boughs, and leaves, and bright colors, are everlastingly lovely, and to be by all men beloved."



Sunrise in Northern Ontario.

FROM "FORS CLAVIGERA."

"The first condition of education is being put to wholesome and useful work."

"He asks the workmen: (1) 'To do your own work well, whether it be for life or death. (2) To help other people at theirs, when you can, and seek to avenge no injury. (3) To be sure you can obey good laws before you seek to alter bad ones.'"

"Mind your own business with

your absolute heart and soul, but see that it is a good business first, that it is corn and sweet peas you are producing—not gunpowder and arsenic."

"Well, my friends, the final result of the education I want you to give your children will be, in a few words, this: They will know what it is to see the sky. They will know what it is to breathe it. And they will know, best of all, what it is to be under it as in the presence of a Father who is in heaven."

"A day will come when we shall have men resolute to do good work, and capable of reading and thinking while they rest."

He thinks a time will come when vast estates must be broken up. "Neither British Constitution nor British law, though it blanch every acre with an acre of parchment, sealed with as many seals as the meadow had buttercups, can keep your landlordship safe henceforward for an hour. You will have to fight for them, as your fathers did, if you mean to keep them."

His ideal for life: "Agricultural life, with as much refinement as I can enforce in it."

"Contentment is the main matter; you may enjoy to any extent, but if you are discontented, your life will be poisoned."

FROM "UNTO THIS LAST."

"So long as there are cold and nakedness in the land around you, so long there can be no question at all but that splendor of dress is a crime."

"Is it not wonderful that, while we should be utterly ashamed to use a superiority of body in order to thrust our weaker companions aside from some place of advantage, we unhesitatingly use our superiorities of mind to thrust them back from whatever good that strength of mind can attain."

"I believe that no Christian nation has any business to see one of its members in distress, without helping him, though at the same time, perhaps, punishing him; help, of course, in nine cases out of ten, meaning guidance, much more than gift."

"It would be far better that members of Parliament should be able to plow straight and make a horseshoe, than only to feather oars neatly or point their toes prettily in stirrups."

The present competitive system of the world he looks upon as creating "a vast and disorganized mob, scrambling each for what he can get, trampling down its children and old men in the mire, and doing what work it finds must be done with any irregular squad of laborers it can bribe or inveigle together, and afterwards scatter to starvation."

"It follows from the natural limitation of supply that the accumulation of property. . . in large masses at one point, or in one person's hands, commonly involves, more or less, the scarcity of it at another point and in other persons' hands. Therefore, the modes of its accumulation and distribution need to be in some degree regulated by law and by national treaties, in order to secure justice to all men."

"Manufacturers should treat their workmen as they should their own sons were they placed in the position of workmen."

"Is the word 'just' or 'legal' finally to stand?"

"There is no wealth but Life. Life, including all its powers of love, of joy, and of admiration. That country is the richest which nourishes the greatest number of noble and happy human beings; that man is richest who, having perfected the functions of his own life to the utmost, has also the widest, helpful influence, both personal, and by means of his possessions, over the lives of others."

"We need examples of people. . . . who have resolved to seek, not greater wealth, but simpler pleasure; not higher fortune, but deeper felicity; making the first of possessions self-possession, and honoring themselves in the harmless pride and calm pursuits of peace. . . . Care in nowise to make more of money, but care to make much of it; remembering always the great, palpable, inevitable fact—the rule of all economy—that what one person has another cannot have; and that every atom of substance, of whatever kind, used or consumed, is so much human life spent; which, if it issue in the saving present life or gaining more is well spent, but if not, is either so much life prevented or so much slain. In all buying consider first what condition of existence you cause in the producers of what you buy; secondly, whether the sum you have paid is just to the producer; thirdly, to how much clear use, for food, knowledge, or joy, this that you have bought can be put; and, fourthly, to whom and in what way it can be most speedily and serviceably distributed."

Of the uselessness of a man's possessing great riches, he says: "Plunged to the lips in Orinoco, he shall drink to his thirst measure—more, at his peril; with a thousand oxen on his lands, he shall eat to his hunger measure—more at his peril. He cannot live in two houses at once; a few bales of silk or wool

will suffice for the fabric of all the clothes he can ever wear, and a few books will probably hold all the furniture good for his brain."

"The first necessity of all economical government is to secure the unquestioned and unquestionable working of the great law of Property—that a man who works for a thing shall be allowed to get it, keep it, and consume it in peace. This, I say, is the first point to be secured by social law."

"If we made in our dockyards ships to carry timber and coals, instead of cannon, and with provision for the brightening of domestic, solid culinary fire, instead of the averting of hostile liquid fire, it might have some effect on the taxes."

"No man can become largely rich by his personal toil. The work of his own hands, wisely directed, will, indeed, always maintain himself and his family, and make fitting provision for his age. But it is only by the discovery of some method of taxing the labor of others that he can become opulent. Every increase of his capital enables him to extend this taxation more widely; that is, to invest larger funds for the maintenance of laborers—to direct, accordingly, vaster and yet vaster masses of labor, and to appropriate its profits."

An Accident to an Esteemed Contributor.

Our many readers who have become acquainted with Mrs. H. A. Boomer, of this city, through her articles contributed for many years to "The Farmer's Advocate," over the signature of "H. A. B.," will be distressed to learn that she has been very seriously injured. On July 20th, while she was driving in a two-wheeled cart with a friend, the horse ran away, and both the occupants of the cart were thrown out, Mrs. Boomer striking against a telegraph pole. Indeed, at time of writing it is not known how serious the extent of her injuries may prove to be.

Mrs. Boomer, who is over 70 years of age, is the widow of Dean Boom-

er, and has for many years been identified with charitable work in the Dominion. Indeed, she spent the forenoon of the day upon which she met with the accident in packing bales of goods to send to the sufferers from fire at South Porcupine.

Mrs. Boomer has also been a very active worker in the Daughters of the Empire and the National Council of Women, of which she has held the office of President of the local branch in London.

It is earnestly hoped that her injuries may not prove as serious as has been feared.

Hope's Quiet Hour.

Noted in God's Book.

Are not these things noted in Thy book? —Ps. 56: 8 (P. B. version).

"Ah, little rocks the laborer
How near his work is holding him to
God,
The loving Laborer through space and
time."

The prophet Malachi has told us that when two people who fear the Lord are talking together, the LORD is not only listening to their conversation, but is careful to have it recorded in His book of remembrance. In the Revelation of St. John, we are told that one day these books shall be opened, and the dead shall all be "judged out of those things which were written in the books, according to their works."

We go on our way so carelessly, forgetting that a record of our secret thoughts, words and actions is always being made. Of course, this is figurative language—God needs no record, for everything is written in the book of His remembrance. But the figure of a Book is often used in the Bible, so we have the right to use it.

If we could open the book of our past life, how glad we should be to tear out some of the pages. Our foolish and unkind words are written there, and we would give a good deal to unsay them. Our reckless thoughts—thoughts which have hardened into character—will they blacken some of the white sheets? But the records are not all against us. There is, we are told, "another book, which is the book of life." There are engraved in glowing letters all our longings after holiness, our beautiful thoughts and earnest

prayers, our brave and gentle words, our loving acts of service. The cup of cold water given by a child to a weary traveler is soon forgotten by the giver, perhaps it is forgotten by the receiver, but the Great Ruler of the universe will never forget it through all eternity—if it was inspired by love.

It is our own fault if our names are inscribed in the wrong book. Once a capitalist gave \$100 to a charity, and at once reduced his workmen's wages, so that he appeared to be generous—at the expense of the poor.

Do you think the recording angel could be deceived by such a showy act as that? Could such a loveless gift be accepted by the God of Love?

Mercenary almsgiving has been defined as the giving away of something for the purpose of receiving something else—often something more valuable—in return. One man spends his money on a fine house or other earthly advantages, another spends his with the intention of winning the respect and admiration of other people, the honor and glory of men; which he considers is well worth the price. The second man may be wiser than the first—as respect is worth more than fine belongings—but is his aim any more unselfish? He "has his reward," he gets the article he is anxious to buy, and—that is all. The money is spent, but he has missed the privilege which might have been his—the gift is not written down in God's book of life. God was not considered in the transaction, nor even man—except the man who was trying to win something for himself. It was simply a business transaction—so much money spent or work done for so much admiration. The only love shown was self-love.

Is it only millionaires who indulge in this kind of giving, feeling satisfied that they are laying up treasure in heaven? Is it only politicians—being excessively generous before an election—who fancy that they are wonderfully charitable when they are only pursuing their own selfish aims?

Let us turn the search-light on ourselves, and we may find that much of our generosity, much of our energetic working in a good cause, is only selfishness gilded over. There is a great deal of money and service poured out every year in the sacred Name of Christ, but He only knows how much of it is pure and unadulterated. Ezekiel said that God was looking for gold and silver among His people, but could only find dross, "all they are brass, and tin, and iron, and lead, in the midst of the furnace; they are even the dross of the silver. . . . I will gather you, and blow upon you in the fire of My wrath, and ye shall be melted in the midst thereof."

God is looking for pure metal, and how glad He must be when He finds a man or woman of sterling quality. To-day I read in the paper the terrible story of the fires which have raged so fiercely in New Ontario. The deeds of heroism were "too numerous to be recorded in detail"—so said the newspaper reporter. And yet they are recorded in detail—written in the book of life. The heroism was there before, and God knew the powers of each soul, but the test of fire brought it into view. Pessimists are inclined to mourn over the frailty of human nature. I have heard them talk as though men and women were mostly of very poor quality, and as though the heroic deeds of the past were far beyond the commonplace people of to-day. But God knows better, and we ought to know better when the papers are constantly telling us how ordinary men and women rise suddenly to meet some tremendous strain, astonishing the world and themselves. Often the greatest and noblest deeds are never heard of by the world—but we shall all know of them when the book of life is opened. God will not let one fall forgotten to the ground. We must not think that His earthly children are always grieving His Fatherly heart by their weakness and sin. Often He is able to rejoice over them, as they rise to glorious heights of self-forgetful love.

Do you think it is only in a crisis, such as this fire in North Ontario, that commonplace people rejoice the heart of God by their nobility of soul?

Every day many lovely deeds are noted in His book. Perhaps it is a battle against dolefulness or against commonplace crossness, which is fought out in silence and secrecy. The world only sees



A Northern Ontario River.

a bright smile or hears a kind word, but God has seen how hard it was to keep down the thoughts of self-pity. Perhaps it is only a small coin—a coin really needed by the giver—that is slipped secretly into God's hand through one of His needy children. Do you think most people are close and mean? How is it, then, that hundreds of thousands of dollars have been freely given, during the last two days, for the sufferers from fire.

Is it likely that God would have created so many human souls if He had not been able to find great joy in their splendid qualities. He can see the kindly giving up of selfish pleasure by quiet mothers, and the steady persistence in unceasing or tiring work by millions of ordinary people. He notes down courage and patience displayed on "trifling" occasions—though nothing is really trifling, for each moment character is growing.

What surprises there will be when the books are opened! There will be so much revealed that has long ago been forgotten on earth; much that only God and one human soul knew about, and which only God has remembered.

It is a solemn thing to know that no thought is too secret to be noticed, no omission of duty is overlooked, no careless word is forgotten. And it is a daily inspiration to remember that God notices each sunny smile and cheery word, that He is pleased when the crumbs are brushed from the table and scattered in kindly fashion to His birds, when any little kindness is done for His sake. All these things are noted in His book.

"The kindly plans devised for others' good,
So seldom guessed, so little understood,
The quiet, steadfast love that strove to win
Some wanderer from the woeful ways of sin—
These are not lost."

DORA FARNCOMB.

The Beaver Circle.

OUR SENIOR BEAVERS.

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

Our Last Competition.

In our last competition, "The Story of a Caterpillar," the prizes (equal) have gone to Leslie Houston, Edith Beattie, Clara Kilbride, Lena Davis.

Honor Roll:—Winifred Colwell (whose composition might have won a prize if she had not put it so much in catalogue form), Don Warren, Ezra Martin, Donald Allan, Harry Stephenson.

The Essays.

I.

Dear Puck,—I wrote you a letter some time ago, but did not see it in print, but I hope this one will. I am going to write a story about a Cecropia Moth.

One morning as I was walking along the road I found a caterpillar crawling on a stick. I took a burdock leaf and picked it up and brought it to the house. I put it into a box, then I gave it some berry and parsnip leaves and put the cover on to keep it from escaping. It was a green caterpillar, with pink spots on its sides, and it also had two sort of spines, which were covered with prickles on each segment. It was made up of thirteen segments, and had six legs and eight pro-legs. I kept him in the box a few days, putting in fresh leaves each day, when it became very restless and seemed to be seeking some place to hide. It was restless all day, and when I looked in next morning it had a sort of web partly spun about it, but you still could see the outline of the caterpillar. When I looked in later he was enveloped in a mass of threads, with a very tough outer skin. I left the cocoon where it was made, and one day, quite a while after, when I looked in I was surprised to see a hole in the cocoon and at once I knew the moth had come out. After looking in the dead leaves which he had left in the box I saw the moth. It was very beautiful. I kept it a few days till it strengthened its wings. It would sit on a board and

flap its wings for a while, then it would stop and walk around, and then flap its wings again. It was divided into three parts, namely: head, thorax, abdomen, and had fern-like antennae. After a while it flew away, and I have never seen one like it. This spring, when going through the woods, I found a Luna moth. It was very pretty, and the first one I ever saw. I will have to close now, wishing good luck to all the Beavers.

LESLIE HOUSTON
Thamesford, Ont.
(Age 13).

I am delighted to hear that you found a Luna Moth, Leslie. An event of my life was finding one, two summers ago, in a little wood beside a lake near here. Won't you write again and tell us all about yours, and how you found it? I left the one I found where it was. It was so beautiful that I could not think of killing it, even for a collection.

II.

One nice sunny morning, about the middle of July, a pretty butterfly with dark wings, marked with spots of yellow and blue, of the species known as East-

were dead. He was a big, fat fellow, for he had plenty to eat in the carrot-bed.

But, like all other caterpillars, his freedom was fast drawing to a close. One day in September he was rudely knocked off into a box over which was a glass. He was daily fed, but he often longed again for the freedom of the open air and carrot patch.

But never once did he get out, and at last it came time for him to go into a cocoon. When he had covered himself with a small, brown, cigar-shaped cocoon, he and the box were put in a closet until spring should come; and there through the long winter months he lay, wholly forgotten.

At last it was spring, and time for the caterpillar to come out of his cocoon, in the shape of a butterfly. In a day or two he was out, but no one looked in at him, or even opened the door of the dark closet. The pretty butterfly (for the caterpillar had changed into one similar to the one mentioned at the first of the story) began to despair of ever seeing the bright summer days again. From lack of food, he died in a few days, and when the thoughtless school-

an orange, forked tube behind its head, which emits a disagreeable odor,—a similar device for protection, you see, to that possessed by the skunk. All the swallow-tail caterpillars have these "prongs."

III.

Late in September a lady found a caterpillar on a willow leaf. It was two inches long and almost as large as her little finger. Stripes of green, black and yellow went around its little body.

The lady carried leaf and sleeper home. She also brought some willow leaves for it to eat. She put them all into a glass dish and tied lace over it. In just one week her guest was not to be seen. All the leaves were gone; only a little green bag was left. It was just one inch long, was made very neatly, and looked very much like a little bed or cradle. No stitches were to be seen, and the seams had an edge like gold cord. It was ornamented with black dots like tiny buttons. The caterpillar had sown itself in. His old clothes were near by, looking as if they had been pushed off in a hurry. Early in November the sleeper burst the little green bag, and, lo! a lovely butterfly came out. It had brown and golden wings with stripes of black on them like cords. Each stripe had a feathery fringe. On the edges of the wings were gold and yellow dots. The head was black, and it also had gold and yellow dots on it. The inside of the wings was darker; it was like orange-tinted velvet. All these wonderful changes took place in less than two months.

CLARA KILBRIDE (Age 13 years),
(II. Class, 3rd Reader),
Miscouche, P. E. Island.

IV.

Dear Puck and Beavers,—I enjoy reading the Beaver Circle every week. I am going to write a competition on a caterpillar, and hope to see it in print.

Butterflies lay eggs on leaves, or on the cocoons which they come out of. The heat of the sun hatches the caterpillars out of these eggs. They are different colors. Some of the colors they are are white, gray, brown and black. Some people are afraid to touch them because they think they will hurt them. There is hair all over some of them, and they are called larvae.

Last summer I caught two caterpillars on leaves and put them into a little box. I put holes in the top of it so the air could go in. I gave them green leaves and tender twigs to eat. At first they ate a lot, but in about a week they began to eat less. One day I looked at them and I saw that there were green leaves stuck to them. The next day there were silk threads outside of this. They did not eat anything then.

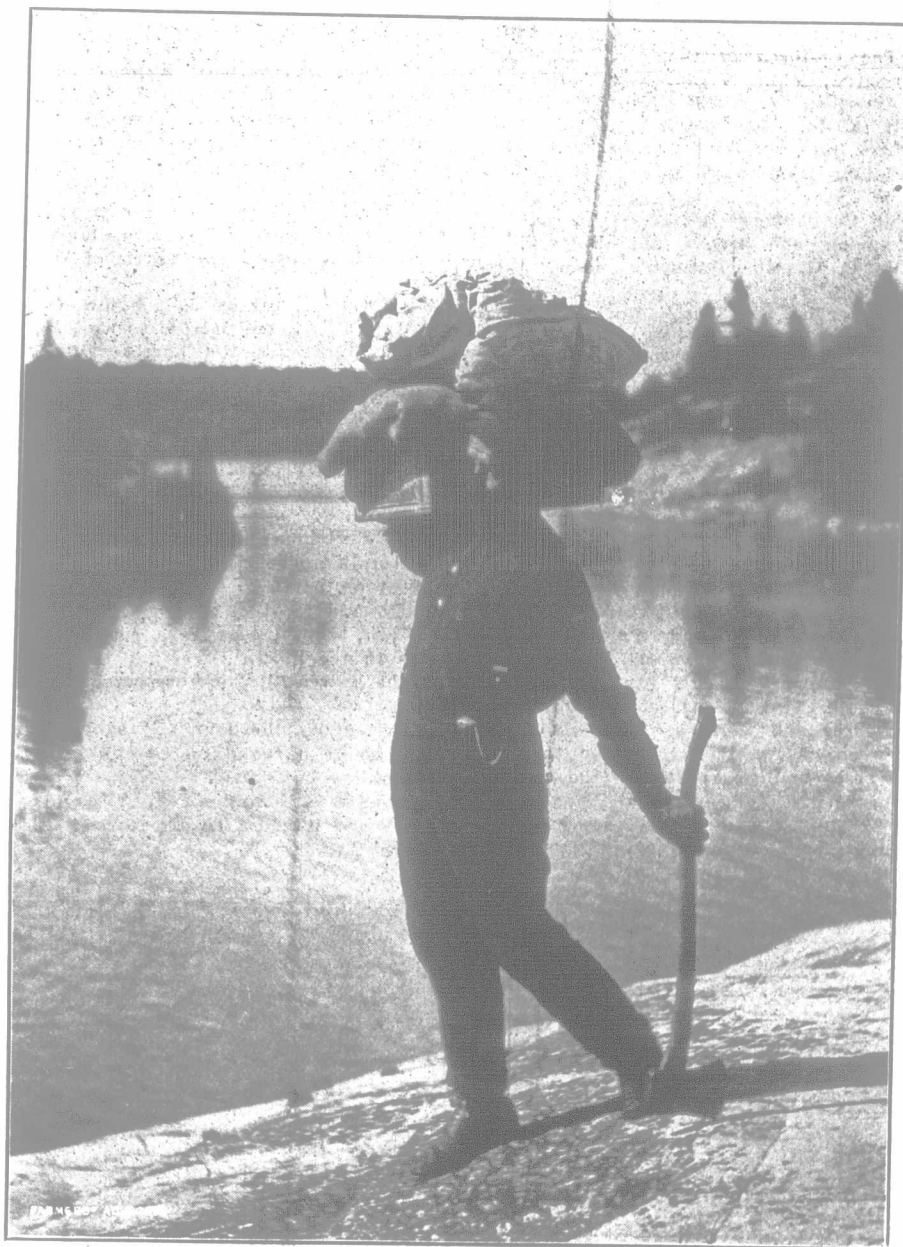
They are called pupae when they are in these covers, which are called cocoons. They were like this all winter. Near spring I thought they were dead, and took the cocoon off one of them. I found that it was living. There were not so many rings around it, and the hair was all off it. It had come off before it went into the cocoon. The feet had all disappeared. One end of it was the shape of a butterfly's head and body.

I put them back in the box again and waited to see what they would turn into. When the nice warm days came in spring they turned into butterflies. One was a great big brown-spotted one, and the other was a white one. The gray ones which fly around at night looking for their food are called moths. The butterflies get honey out of flowers and clover. I have not seen very many caterpillars yet this year.

I guess I will close now, hoping I am not taking up too much of your space.
LENA DAVIS (Age 12),
Saintsbury, Ont.
Book IV.

A Few Words More.

Just to sum up, may we speak a few words more on this subject. Flies, beetles, moths and butterflies all, you will remember, lay eggs; these eggs in time hatch out into worm-like creatures (larvae), usually called maggots in the case of flies and beetles, caterpillars in the case of moths and butterflies. Both maggots and caterpillars have very large appetites for a time, then they stop eating and proceed to go into the "pupal" stage. Some species spin cocoons of



Portaging in the North Country.

Carrying by tump-line is more frequently seen.

ern Swallow-tail, came out from a bed of flowers, where it had spent the night, and flew out into the morning sun. It danced in among the pretty flowers and shrubs, and gloried in the morning air. All the morning, until a little after dinner-time, it spent in this way. When the middle of the afternoon arrived, it settled down on the green tops of some carrot plants and laid some eggs.

We will now leave the butterfly and watch the advancement of these eggs. In a few days they had developed into wiggling little grubs, and soon after into full-fledged caterpillars. They were really pretty in color, having the same colors as the butterfly mentioned above, but as everybody has a feeling of dread when caterpillars are near, these were hated no less than their less pretty cousins.

One of these caterpillars seemed to have his life marvellously preserved, for he was alive a long time after the rest

girl again remembered the caterpillar, there was the beautiful Eastern Swallow-tail butterfly, lying on his back, dead.

But, not to be daunted, the school-girl took a book on butterflies, secured the name of her specimen, and mounted him on a piece of cardboard, where his pretty wings set off the dull gray ones of several moths and the dark coats of as many beetles.

Such was the fate of one pretty Eastern Swallow-tail butterfly.
EDITH BEATTIE (Age 13),
Caledonia, Ont.
Form II.

What happened the rest of the caterpillars, Edith? Were they eaten by birds? I do not know the Eastern Swallow-tail, and should like to know if your sketch was written from your own observation. The caterpillar of the Black Swallow-tail, which has coloring very similar to that which you have described, is bright green, with black markings. When touched it shoots out

silky thread about themselves; yet others develop a hard case, but all soon keep very quiet, like little mummies, except that wonderful changes are taking place. Its pro-legs, if it had any, are disappearing, the head is developing, and the outline of wings is appearing on its sides. In this form it is known as a nymph, pupa or chrysalis. Pupa is the term usually used in regard to the larva of a moth; chrysalis that of a butterfly. By and by the fly, or beetle, or moth, or butterfly, as the case may be, is full grown, and presently it breaks out of the cocoon or pupa-case, sits for a while fanning its wings to strengthen them, then flies off.

It is very odd that though the female moth or butterfly seldom sees its offspring, and never tastes the food they need, she never fails to lay her eggs right on or very close to the very kind of food-plant that the young caterpillars will need to live upon. It is odd, too, that as soon as the young larva hatches out of the eggs, the very first thing it does is to eat up every bit of the egg-shell. If the eggshells were left they might "give away" the neighborhood of the larva to enemies. The larvae themselves being usually colored like the leaves or other substance on which they feed, often, for that reason, escape the sharp eyes of birds or other enemies. Hence caterpillars are of many colors and markings. Some are green, some gray, some brown or bluish; some striped or spotted; some apparently bare, although all show hairs or pile of some sort under a strong enough microscope, some covered with long hairs like the "woolly bears" you all know. In fact, there are caterpillars of all kinds, differing according to the species of insect to which they belong.

The pro-legs, or false legs, to which one of the prizewinners referred, are simply extra legs which the caterpillar needs to support its extra length. When it changes to an adult insect these extra legs, being no longer needed, disappear. It is worthy of note, too, that the breathing pores along the sides of the caterpillars are never found on that part of the body upon which wings will grow. The caterpillar, you know, does not breathe, as you do, through the mouth, but through holes in its sides. Just one more point: Have you ever noticed a caterpillar swinging its head constantly from side to side as it creeps along a leaf or twig? If so, you had better examine closely to see if it is not spinning a little zig-zag ladder of silk thread on which to walk that it may have a better hold.

All of the changes from caterpillar to insect sometimes take place, according to species or temperature, in a few

days, sometimes in two weeks, sometimes in a month or more. Often the cocoon or pupa-case does not open until spring, and sometimes the eggs do not hatch out until spring.

Some "easy" differences between moths and butterflies are the following:

(1) Butterflies usually get up late, usually about 8 or 9 o'clock in the morning, and go to bed before dark. Moths, as a rule, fly at dusk or at night, or sometimes in deep dark woods in daytime.

(2) The body of the moth is usually thicker than that of the butterfly, and the division into head, thorax and abdomen not so well marked.

(3) The butterfly sits with its wings erect; the moth's wings are usually down when at rest.

(4) The antennae of the moth are usually feathery; those of the butterfly slender with a knob or club-shaped thickening at the end.

Boys and girls, there is a very great deal to learn about insects. We just have the first tiny little crack of the door open. If you would like to study more about these little creatures you might like to procure some books to help you. Very good ones are:—

For the older Beavers—

"Life of a Butterfly," Scudder; published by Henry Holt & Co., New York.

"The Children of the Air," Scudder; Houghton, Mifflin & Co., New York.

"American Insects," Kellogg; Henry, Holt & Co., New York.

"The Butterfly Book" (very handsome), Holland; Doubleday, Page & Co., New York.

For the younger Beavers—

"Among the Moths and Butterflies," Ballard; G. P. Putnam's Sons, New York.

"Butterflies and Bees," Morley; Ginn & Co., New York.

"Insect Stories," Mulets; L. C. Page & Co., Boston.

The Letter Box.

Dear Puck and Beavers,—I have been a silent reader of this paper for some years, but since other girls have found the courage to write I think I will too. I go to school, but we are having holidays. I missed about three weeks in the winter, as I had the mumps. I have two sisters, Olive and Dorothy, and one brother, Wilfrid. I am the eldest. We keep twenty-four cows, which are Ayrshires and Jerseys. We also have eighteen cherry trees. I like to climb the trees and to eat them (the cherries, I mean).

Are any of you Beavers book-worms? I am. I like the "Mildred" books, and

my favorites are "Little Women" and "Good Wives." We have the litter-carrier and the feed-carrier in our stables, so we have great fun with the feed-carrier, because we sit in it and it runs along just like a true electric railway, but only not as fast. I think my letter is getting quite long enough, or if I make it any longer it might go to the w.p.b. I would like to correspond with Edith Ward, Walter's Falls, Ont.

VERA SCHWEITZER (Age 12),
Bloomingdale, Ont. Book Sr. IV.

Dear Puck and Beavers.—My father takes "The Farmer's Advocate." This is my first letter to the Beaver Circle. I will not make it long, and I hope it will not go to the w.p.b. My pets are a kitten named Ben, a dog named Bounce, a cow named Bess, a little colt named Dolley. I have three brothers, named Philip, Laurence and Oscar. I go to school every day. I have to go about a mile. I like my teacher. Her name is Miss Davey. Wishing success to the Beaver Circle.

ANNA E. EATON (Age 11 years),
Ekfrid, Ont. Sr. Third.

Dear Puck and Beavers,—This is my first letter to the Beaver Circle, although we take "The Farmer's Advocate," and I have been reading the letters for two years.

I have only two pets, a pony and a dog. I like the pony best, for he is very quiet, consequently anybody can drive him. The pup is black and white spotted, and very playful. My brother plays with him nearly all the time.

I live a mile and a half from school, and just got into the fourth book in June. I wrote on the Battle of Waterloo.

My father is taking off his hay (written July 10th), and I have to rake it for him. Sometimes the horses will not mind me and miss some. I will close now, wishing the Beaver Circle success forever. I would like if some of the Beavers would correspond with me.

MORLEY ATKINSON (Age 10),
Desboro, Ont. Book IV.

Two Scotchmen met and exchanged the small talk appropriate to the hour. As they were parting to go supperward, Sandy said to Jock:

"Jock, mon, I'll go ye a roond on the links in the mornn'."

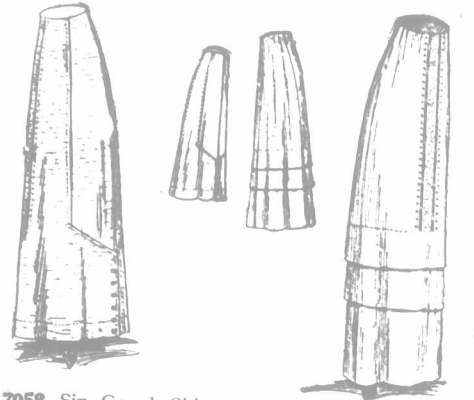
"The mornn'?" Jock repeated doubtfully.

"Aye, mon, the mornn'," said Sandy.

"I'll go ye a roond on the links in the mornn'."

"Aye, weel," said Jock, "I'll go ye. But I had intended to get marriet in the mornn'."

"The Farmer's Advocate" Fashions.



7058 Six Gored Skirt for Misses and Small Women, 14, 16 and 18 years.

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Please order by number, giving age or measurement, as required, and allowing at least ten days to receive pattern. Price ten cents per pattern. Address, Fashion Dept., "The Farmer's Advocate," London, Ont.

The Ingle Nook.

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

Conquering Plainness.

Occasionally, usually in the Women's Department of a paper, or in a Woman's Magazine, one reads a very silly article dwelling emphatically on the necessity for beauty in woman. One such was read the other day in which the impression was given that a woman is nobody if not beautiful, that the greater portion of her time must be spent in an effort to be beautiful, and that the chief reason for being so is to the end that she may be pleasing in the eyes of men.

Now, few will say that a woman should devote no attention at all to her appearance. To have frowsy hair; to neglect the essentials of cleanliness in bathing and care of hair, teeth and nails; to put one's clothes on carelessly; to take no care whatever of her skin; to wear gaudy colors, or to overdress in any way; to wear untidy shoes or gloves; to dress "queerly"—these are mistakes that are not easily condoned even by the most indulgent. A woman is perfectly right in making the best possible of herself, but that is a very different thing from letting her whole thought and life run to that end. No woman has a right to let herself become a silly empty-head for the mere sake of being beautiful; and that is practically what she must become, is it not, if she lets her thoughts run ceaselessly on such themes? Woman is not even her own to waste so. She has been put into this world for a better purpose than that.

Then, coming right down to plain, unvarnished truth, is it not so that very few women are really beautiful? "Nice"-looking, sensible-looking, sweet-looking, bright-looking,—there are these in plenty, but very few there be who are noticeably beautiful. One has a bad nose, another a bad chin, another a big mouth, poor hair, unlovely teeth,—and so on. And



About the Camp-fire.

then there is always the one who is downright plain all through, or so nearly all through as to amount, practically, to the same thing.

Now, what about these last mentioned? Because they are not beautiful, even after they have made the best of themselves, must they eternally shrink into a corner or be pushed into a corner in order to make way for the acknowledged beauties? Without shirking the situation, it must be confessed that the latter do meet with a very great deal of adulation. Positions—if they are in need of them—and husbands do fall in their way, often, because of their looks; and, if they have the sterling qualities of good sense and kindness, in addition to those alluring "looks," no one should feel that they receive ought but their due.

At the same time, it is an acknowledged fact that the extremely pretty girl is very often a spoiled girl. She receives so much homage that she too often becomes, quite unconsciously, selfish, haughty and vain. Her friends find out her weaknesses, and the friendship becomes, in reality, but a cobweb thread. She wins a husband, but there comes a query—Is the best kind of husband won by mere looks? Some of the other girls win husbands too, and who can say that they are quite debarred from the best of the picking?

There are usually compensations, and so the partially-homely, or the out-and-out homely girl, need not despair of winning her share of the good times, and good friends, and mayhap good husbands. After all, the sterling qualities count—they really do count—and hold their place better in the currency of the things that last.

Looking back over the history of the world some lessons may be learned. Helen of Troy was a beautiful woman, and Cleopatra, and Rosalind, and Mesdames du Pompadour, du Barry, and Louise de Vallieres; so were Anne Boleyn, Nell Gwynne, Lady Castlemaine, and a host of that ilk. Now, to the other side, to the women who have accomplished things: We have never been told that Florence Nightingale was a great beauty, nor Maria Edgeworth, nor Jean Ingelow, nor Harriet Martineau, nor Mrs. Elizabeth Browning, nor Mrs. Gaskell, nor, in our own day, Madame Curie, or Dr. Louise Robinovitch, or Marie Lagerlof. Charlotte Bronte was notably plain, and so was George Eliot, who, though her life was in some points objectionable, is worthy, in many others, of admiration. Few right-minded women, if asked to choose from the two lists which women they would most willingly fill the place of, will be found to lay finger on any in the first, we venture to say.

And so there are compensations. Lincoln, to quote an example from the sterner sex, was noted as being one of the least handsome and most awkward men of his time. He was greater than either defect. And so may be any man or woman who sets his or her thoughts and attention and activities on things that are worth while. All can not be "stars in the galaxy of fame," but the compensations exist, as well, in the quiet ways, the quiet satisfactions of possessing true friends, of doing little kindnesses, of polishing up the mental or real part of oneself, of being of use in the world.

I heard the other day a nice little story of a quite, plain girl, known to many in this county, and beloved by all. Years ago, when at the threshold of young womanhood, she said, "I know I am not pretty, but I am just going to be so kind that everyone will love me." It was said as a joke—for all who knew the girl knew that she could not be other than kind, and that there was no cold calculation in her decision—but is there not a lesson in the incident? This girl is a favorite; she is anything but beautiful; then need any plain girl despair?—knowing that it lies in her own power to make herself so mentally bright, so unselfish, so friendly, so kind that everyone will love her. Habit greatly determines what we shall be. If the plain girl, because of her plainness, shrinks back, is reserved, cold, standoffish, she must needs grow colder, more reserved, more standoffish, as the years go by; she will miss the "hosts of friends" that mean so much to most normal humans, and mayhap for want of them she may grow bitter, a little. On the other hand, if she is gen-

ial, bright, friendly, unselfish, what a different path may she not hew out for herself?

What has put me on this tack to-day? Perhaps the strenuous efforts evident among some women and girls whom I know to make themselves as beautiful as new summer clothes and hats can make them, in spite of the hot weather. Again, it is all right for every woman to make herself as attractive as these things—in reason—can accomplish. But clothes, and hats, and fluffed hair, do not make up the total of a woman—not by a very long way.

[Girls, the foregoing need not clash with the Pretty Girl Papers that we have been publishing. Make your appearance as attractive as you reasonably can, but do not become a slave to it. Remember that it takes much more than pretty complexion, hair and dress to make a really attractive and ideal woman.]

Quilt Patterns—Onion Maggots.

Dear Dame Durden and Ingle Nookers,— "In reading 'The Farmer's Advocate,' I saw a request for Irish Chain quilt, and, having the same, I am enclosing a pattern.

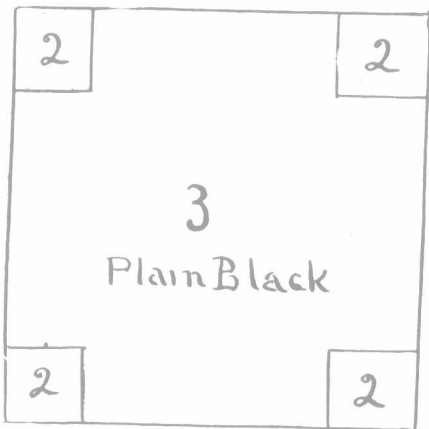
"The quilt is made of a patched block, and a plain block with a small square set on each corner, and these two blocks are put together alternately throughout the entire quilt.

"If three colors are used, as given in the pattern, it makes the double Irish chain; if a single chain is required, piece just the same, only substitute blue throughout where pink is given in the pattern.

"Please answer the following through 'The Farmer's Advocate':

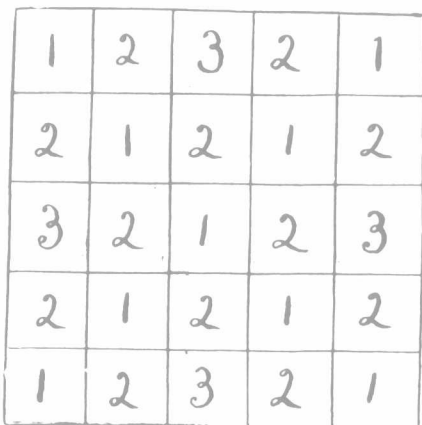
"Will lime prevent onion maggot? If so, when should it be sown, and what quantity, and slaked or unslaked?

"Am intending breaking up a piece of sod this fall for a garden plot next summer. How should it be treated so as to insure against grubs destroying the vegetables? Thanking you in advance, I remain, "A BEGINNER."



"Irish Chain."

["Black" should be "block." The engravers made a mistake when making the cut.]



"Double Irish Chain."

[1. Pink. 2. White. 3. Blue.]

Ans.—Bailey says in regard to the onion maggot (which is really the larva of the onion fly): "This is one of the most severe pests when it enters the field, there seems to be but little encouragement in combating it. A thorough application of ground tobacco stems down the row seems to act as an insecticide and a repellent, besides being of value as a fertilizer."

Greiner says: "Various methods of destroying this pest have been recommended. Ormerod suggests rotation with

some other crop in order that the flies emerging from the pupæ that remain in the soil may not find onion plants at hand upon which to deposit their eggs; earthing the young plants well up above the collar so that the flies are prevented from reaching the bulb; pulling and destroying the plants first affected, by which means the migration of the maggots to sound bulbs is checked; the avoidance as far as possible of natural manures, in which the larvæ of these insects live; or finally the application of lime to the land. Orpet recommends the following method, which is well worth a trial: "Half a pint of kerosene is well mixed with a pailful of some dry material, preferably wood ashes, but sand, sawdust, or even dry soil will do fairly well; after the plants are well up and the trouble is at hand, a sprinkling of this mixture along the rows about twice a week during the time the fly does its work, will be found a sure prevention of the trouble. After the end of May there is little danger, as the onions are of a good size and not so liable to injury."

"I invariably plant radishes, and often cauliflowers and cabbages, in the immediate vicinity of the onion patch, or perhaps a few rows here and there right in it. The radishes, cauliflowers, etc., appear to act as "catch" plants. At least they are usually more or less infested by maggots, while the onions are seldom attacked. I have reason to believe that strong lime water made from freshly-burnt lime, will kill all the maggots with which it comes in contact. To apply it, soak the ground around the plants so

thoroughly that the application will reach the worm feeding at the rootstalk or bulb.

"When the plants are in a hotbed, maggots can be destroyed by inserting bisulphide of carbon into the soil. Prof. Bailey recommends to puddle the plants when transplanting, in a puddle to which sulphur has been added, and sprinkle sulphur about the plants after they are set. Of course, all infested plants should be pulled up and burned at once."

I hope the above will be of value to you. One of our "masculine" editors says in regard to your sod garden plot, that the best plan is to have it plowed quite shallow, and manured if necessary, as soon as possible, then deeper again late in the fall to break up the pupæ-cases and leave the grubs exposed to the frost. Turning hogs on the plot will be of some value, as they root out many of the grubs.

Some Unique Patterns.

Dear Dame Durden,—I saw a request in your paper for quilt patterns, and I am enclosing drawings of some of the most popular ones.

The single star pattern is a very pretty one, and is composed of diamonds, each about 4 1/2 inches long and 2 inches at the widest part, but, of course, they may be made larger or smaller as desired. A very pretty quilt has the diamond of red calico, alternating with blue, on a white ground. Set the blocks together with plain white squares or strips.

The Albany quilt is a very popular



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Choose your color, grade and size from the list below and state clearly just what you wish. One size and one grade in each box. Colors only may be assorted as desired. Six pairs are guaranteed six months except when stated otherwise.

Men's Socks—Sizes 9½ to 12. Colors: black, light tan, dark tan, pearl, navy blue, gun-metal, mulberry. In light weight, 6 pairs \$1.50 (same in medium weight in above colors and in black with white feet, 6 pairs \$1.50). Light and extra light weight (mercerized), 6 pairs \$2.00. Light and extra light weight LUSTRE SOCK, 6 pairs \$3.00. Pure thread-silk sock, 3 pairs (guaranteed three months) \$2.00. Medium worsted merino in black, tan, pearl, navy and natural, 6 pairs \$2.00. Same in finer grades, 6 pairs \$3.00.

Women's—Sizes 8½ to 11. Colors: black,

Get This Mark



Reg. U. S. Pat. Office, 1908
Carl Schuchl, Inc.

light tan, dark tan, pearl, and black with white feet. Medium weight, 6 pairs \$2.00. Same colors (except black with white feet) in light weight LUSTRE HOSE, 6 pairs \$3.00. Light weight in black, tan, and gun-metal, 6 pairs \$2.00. Same in extra light weight LUSTRE HOSE, 6 pairs \$3.00. Same in pure thread-silk \$3.00 for 3 pairs (guaranteed three months). Outsize in black, medium weight, 6 pairs \$2.00, and in extra light weight LUSTRE HOSE, 6 pairs \$3.00.

Children's—Sizes 5½ to 10½ for boys, 5 to 9½ for girls. Colors: black and tan. Medium weight, 6 pairs \$2.00.

Infants' Socks—Colors: tan, baby blue, white and pink. Sizes 4 to 7. Four pairs (guaranteed six months) \$1.00. Ribbed-leg stockings, in same colors and black, sizes 4 to 6½, pairs (guaranteed six months) \$1.00.

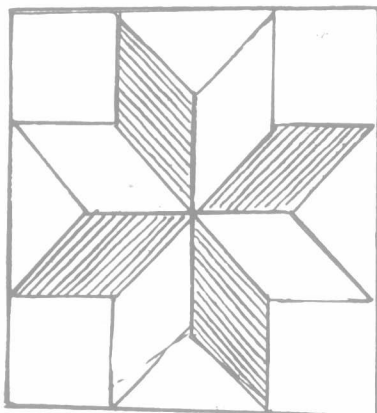
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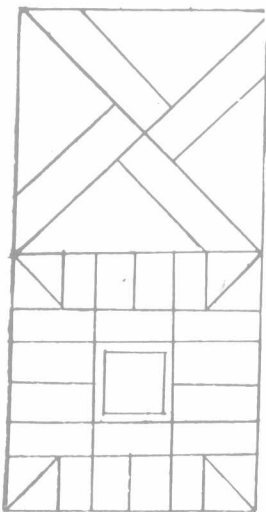
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Are Your Hose Insured?

(213)



"Single Star" Pattern.

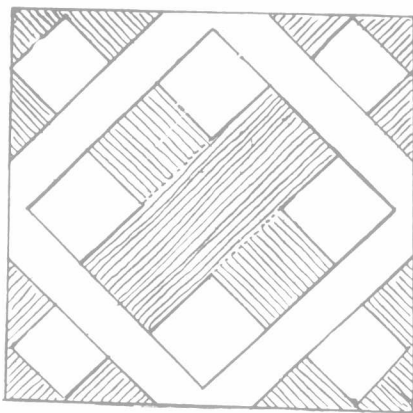


Windmill Pattern.

quilt, and very easy to make. Start at the center and have ground work dark. The double Irish Chain pattern is very

pretty, and it is better to make it of two kinds of calico of the same pattern, having as colors red and blue alternate blocks, set together with blue.

There are many other patterns, namely: Churn-dash, Album, Monument, Necktie, Lost Ship, Steps of Jerusalem, and several other patterns I could procure if anyone desires them.



"Albany" Quilt.

Hoping this letter is not too long for a new member, I will sign myself
SCOTCH MOLLY.

Elgin Co., Ont.

Again we heartily thank all those who have so kindly contributed quilt patterns.

The Scrap Bag.

A Laundry Hint.

Save time on washing by keeping a bag of mosquito netting on hand into which all small articles such as collars may be placed before putting them into the boiler.



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When Heating Irons.

Turn an old pan or kettle over irons which are being heated and they will get hot much quicker. This also keeps the room cooler.

Tempering Irons.

Heat new irons very gradually and let them stay hot for several hours without using, then let them cool gradually and set them away in a dry place.

Tumblers that Stick.

When one tumbler sticks in another so that they cannot be pulled apart without danger of breaking, fill the upper one with very cold water up to the sticking point and set the lower one in warm (not too hot) water. The upper one will contract, the lower expand, and so they may be easily separated.

A Handy Funnel.

Half an egg-shell with a small hole in the bottom makes a very good funnel if one has no other about.

Some More Hot-Weather Recipes.

Chocolate Ice Cream.—Stir 6 tablespoons grated chocolate into a cup of fresh milk; mix well; add 2 cups sweet cream, sweeten to taste, and freeze.

Frozen Custard.—Let 2 pints of milk almost come to a boil in a double boiler. Beat the yolks of 6 eggs with 3 small cups sugar, then add the milk gradually. Fold in the whites of the eggs beaten stiff. Put all in a saucepan and stir until creamy. When quite cold, stir in 2 pints of cream, and freeze. You may stir in berries or bits of fruit of any kind if you choose.

Rice Blanc-Mange.—Put 6 ounces rice in a pan with 1 pint water and let simmer slowly in the oven 2 or 3 hours. Add ½ pint rich milk or cream, sugar and flavoring to taste. Let boil up over the fire, and then pour into a mould. When quite cold, serve with a little preserve or jelly.

Lettuce Salad.—Arrange the lettuce in a glass bowl with the leaves standing up. Have a dressing made as follows: Rub a bowl with a slice of onion. In it mix ½ teaspoon salt and a dash of cayenne. Add 1 tablespoon vinegar and 2 or 3 tablespoons salad oil or melted butter. Stir over very cold water until thick, then pour lightly over the lettuce leaves.

To Cool Water.

To cool water in a pitcher without ice, wrap the pitcher in a wet towel, and set it in a cool, drafty place.

To Color Shoes.

To color white canvas shoes, paint them with water-color, as dyeing is likely to shrink them. To clean white kid shoes, rub with a cloth wet with gasoline and dip in powdered chalk. Dry in an airy place, but not in the sun.

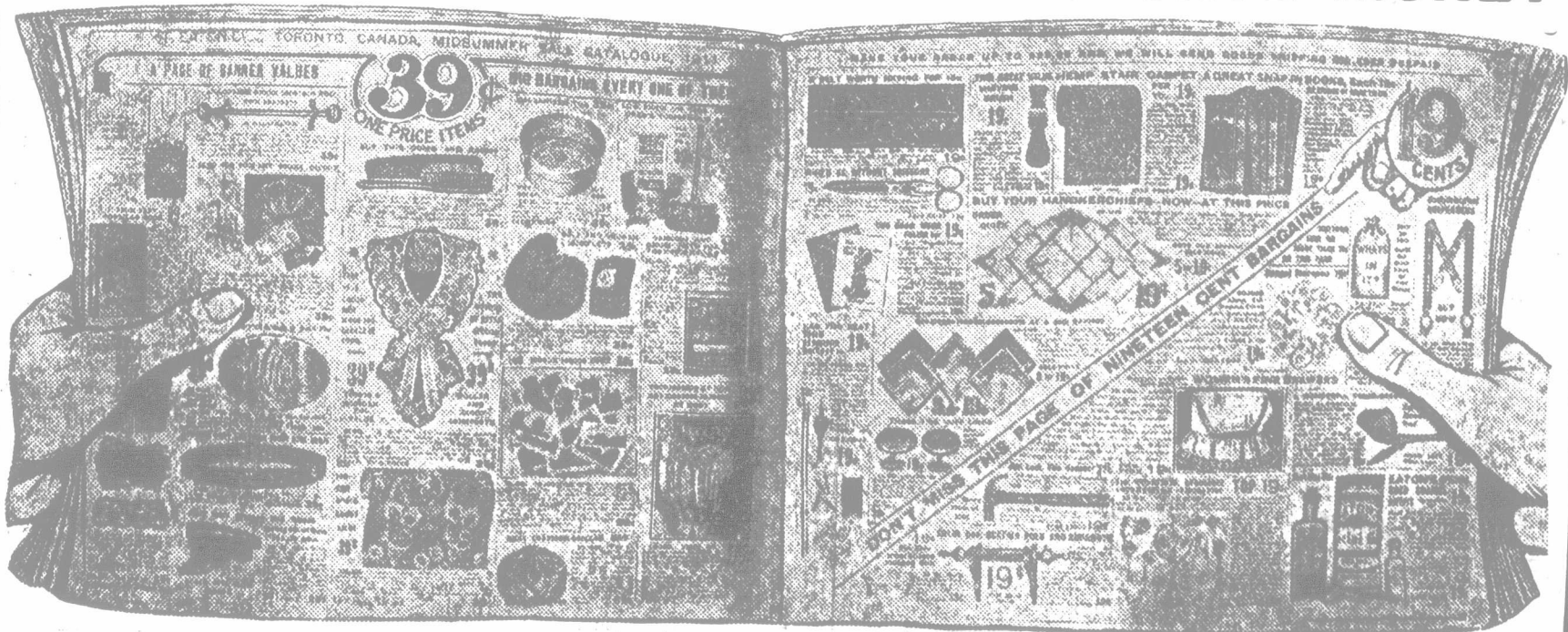
To Work Buttonhole in Lace.

Baste small squares of thin lawn under each place to be worked, then cut the buttonholes and work as usual, cutting away the superfluous lawn afterwards. Also put tiny bits of lawn under each button.

Milk for Starch.

Instead of starching very fine white articles, dip them in skim milk. They will be stiff enough, and will not stick to the irons.

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OUR July and August Sale has always been a grand opportunity for you to save money, but no previous sale ever held by T. EATON CO. has equalled this one. We never listed values before which were quite as good as those contained in the 24 pages of our Midsummer Sale Catalogue. We are not over-estimating them: in fact, we cannot do them justice by describing them.

YOU MUST SEE THE GOODS and examine them to appreciate the phenomenal opportunities to save money, which we are placing before you. If you have not received a copy of our Catalogue, write for one immediately. We are not exaggerating the merits of this Sale. It would be folly for us to do so, since our Guarantee allows you to return any article with which you are dissatisfied and get your money back in full.

ALTHOUGH the prices quoted in our Sale Catalogue are wonderfully low, nevertheless the quality of the goods has in no way been sacrificed to make the price. We have bought in enormous quantities, we are selling in enormous quantities, and to create two months of hustling business, we have reduced our already low margin of profit. Every item is something which every household is either needing at present or soon will be. Buy now either for present or future needs. It will pay you to do so.

WRITE TO-DAY FOR OUR JULY AND AUGUST SALE CATALOGUE IT IS FREE FOR THE ASKING

OUR prices are low—they are exceptionally low—in fact, they are the lowest ever quoted on similar goods by T. EATON CO. This Sale has already proved a great boon for thousands of shrewd buyers who are ever anxious to make a dollar reach the limit of purchasing power.

MONEY SAVED IS MONEY GAINED, and this sale is your opportunity to save. Now is the time to take advantage of the wonderful values which we are placing before you. Send us your order—when the goods arrive look them over—if you don't like them send them back and we will refund your money in full. Try us once and do it now.

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Melons for Breakfast.—Place the melons (musk) on ice until thoroughly chilled, then cup open, take out the seeds, fill with finely-cracked ice—provided you are sure the ice is pure—and serve. For dessert at dinner the melons may be prepared the same way, but fill with ice cream.

Blackberry Charlotte.—Make a boiled custard with 1 quart milk, yolks of 6 eggs, ½ cup sugar, flavoring to taste. Line a large glass dish with slices of sponge cake dipped in sweet cream, then a layer of sweetened blackberries, then another layer of cake and berries as before, and so on until the dish is full. When the custard is cold pour it over the whole; then beat the whites of the eggs to a stiff froth, add ½ cup sugar, and flavor to taste. Heap this on the top and decorate with large berries.

English Cream.—Mix together well half a cup each of sugar and flour, and ¼ teaspoon salt. Blend with hot milk, from a pint scalded over hot water. Return to the fire and cook, stirring constantly until it thickens; then cook, stirring occasionally, for 15 minutes. Beat 2 eggs, add ¼ cup sugar, and stir into the hot mixture. Stir until the egg looks cooked, then let cool and flavor with vanilla, lemon, orange or coffee.

Graham Bread.—Soften one-third cake of compressed yeast in ¼ cup lukewarm water; add 1½ cups of scalded and cooled milk, ½ cup molasses, 2 tablespoons butter, and 1 teaspoon salt. Mix well, then stir in 2½ cups graham flour and 1½ cups white flour. Mix very thoroughly; the dough is not firm enough to knead. In the morning cut the dough through and

through with a knife and turn it over and over. Turn it into two buttered pans, make smooth with a knife, and let stand to become nearly doubled in bulk. Bake about an hour.

Is Your Child a Mouth Breather?
By Charlotte C. West, M. D., in Pictorial Review.

Perhaps the most common of all conditions in children that interfere seriously with the health, are troubles of the nose and throat. The mother who lovingly presses her baby to her breast while in the act of nursing, thus interfering with its breathing, does not realize that she may be laying the foundation for future distress to her child, which may affect it throughout its entire life.

As everyone is aware, the nose is but partially developed at birth, assuming shape and form only with the general growth of the body. That portion of nose which we see is the least of it; the most important part, the part with which we breathe, is inside, and is most intimately connected with the development of the brain, and, therefore, of intelligence; with the ears, and consequently with our sense of hearing; with the proper formation of the mouth, and thus with the growth of the teeth; with the lungs, and, therefore, with a sufficient supply of oxygen upon which life depends. So you see that just as "Big oaks from little acorns grow," so does the proper development of the entire body depend upon so apparently small a thing as an unobstructed breathing apparatus.

In an infant, the nasal passages are ex-

tremely small, whereas the glands at the back of the nose and in the throat are large. The least thing that interferes with the intake and output of air through these narrow passages affects the general health, and more particularly the condition of these glands.

THE GLANDS OF THE THROAT ARE NATURE'S SENTINELS.

Nature has provided an abundance of glands in this location at birth, because children are peculiarly susceptible to air-borne diseases; by that I mean those diseases of early childhood, such as measles, chicken-pox, whooping cough and diphtheria, which are due to germs that are carried about in the air. These glands are Nature's sentinels which guard the passageway to the lungs and blood, and protect the body against the invasion of these germ diseases. As we grow older and stronger, and are more able to resist the action of germs, these glands in the nose and throat shrink, because we no longer have the great need for them we had in childhood.

But anything that interferes with nose breathing during the early years of life causes these glands to take on an additional growth. In time large masses of them may be formed, completely stopping up the air passages at the back part of the nose, so that breathing through the nose is not only extremely difficult and only partially performed, but in some cases is absolutely impossible. Mouth-breathing, not only while asleep and during the night, but at all times, becomes the rule.

Who has not noticed such a child, with

its mouth hanging open, the lower lip usually enlarged, the nostrils pinched together with scarcely any opening, the bridge of the nose unformed, the mouth long and narrow with overlapping teeth, the whole face wearing a dull expression, and the general manner listless and pre-occupied?

This may be an extreme picture, but thousands of children suffering to a greater or less degree from this condition, are found in the public schools throughout our country. Fortunately, the physicians on the health boards are making new children of them by removing these growths—called adenoids—and so enabling them to breathe into their bodies a proper supply of fresh, pure air.

A great many people are under the impression that the nose is made only to smell with, whereas it should more rightly be regarded as the principal organ of respiration or breathing. The moment this is understood, together with the fact that without air life is impossible, we can appreciate the importance of this subject.

It might be supposed that although a mouth-breather, the child would be able to take in a sufficient supply of oxygen (the life-giving element in air) for all the demands of the body, but this is not so. The air must pass through the nasal passages, because this organ is supplied by Nature with the necessary apparatus for warming, filtering and moistening the air before it enters the throat and lungs. When the nose is obstructed, and the child breathes through the mouth, the cold, dusty and dry air coming in contact with the delicate coverings of the upper air passages (larynx, bronchial tubes, and

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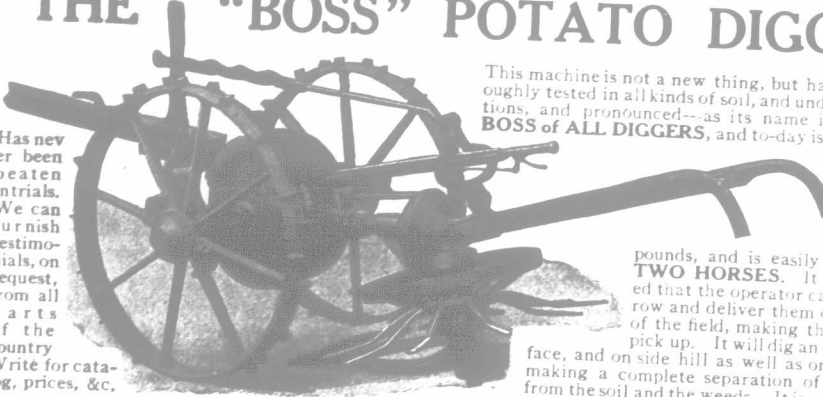
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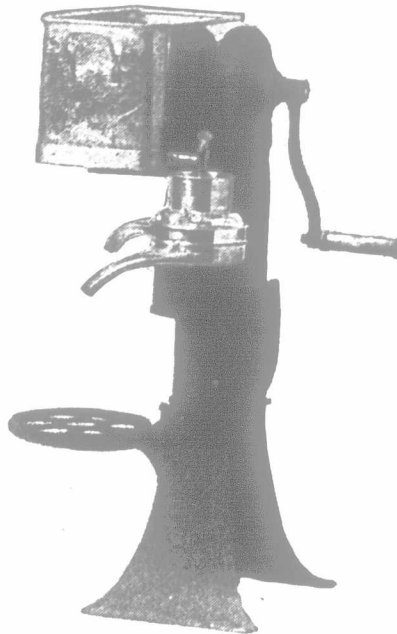


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so forth, gives rise to inflammation of these parts, and we have various sore throats, hacking coughs, attacks of bronchitis, and the like.

These children do not hear very well either, and it is a fact generally well known among physicians, that ninety per cent. of ear diseases in children is caused by adenoids, and that this is usually the starting point of the majority of cases of deafness in adults.

Mouth-breathing seems in some way to have a very decided effect upon the general nutrition; that is to say, the body as a whole is not sufficiently nourished, even when the child is being well fed. Let me emphasize this point: the body does not depend altogether upon the food we consume for its nourishment; it is absolutely necessary to get the proper amount of oxygen. The mouth-breathing child is not properly aerated; he does not get enough oxygen, nor does he get it in the right way.

DEFECTIVE MENTALITY OFTEN DUE TO ADENOID.

A great deal of attention is being given to-day to so-called mentally defective children; that is, children whose intelligence does not keep pace with their years. This condition may show itself quite early in life by backwardness in speech. Later on, as the child attends school, it is unable to keep up with its companions, and lags behind; reports are sent to the parents that the child is inattentive, that it shows no interest in its studies, and that it answers at random. This lack of mental alertness is in a vast majority of instances caused by deafness--for when a child does not hear well, how can it display an interest in what is going on?

We find a tendency to adenoid growths in some families where the nose is so shaped that the nostrils are mere narrow slits. It is generally admitted that the real cause lies in the fact that the proper use of the nose is not recognized by parents, and that the children are notoriously neglected in this respect. In short, the nose is the chief organ of respiration, and children must be taught to breathe through the nostrils.

It is a well-known fact that in our damp and variable climate, we all suffer more or less with throat and nose catarrh; all children acquire this condition at some time or another. When we are in perfect health we never require the use of a handkerchief to free the nose from accumulations of mucus and the like, but in our treacherous climate children should not only be taught the need of blowing the nose and be shown how to blow it, but they should be provided with clean handkerchiefs and punished in some way for neglect in this respect.

"Colds" must never be neglected. There is not the least doubt that repeated colds lay the foundation for much serious and sometimes fatal trouble. A book could be written upon this subject alone. In our changeable climate the greatest care must be exercised in the bathing and clothing and the ventilation of sleeping rooms, so that the child will not be unduly exposed to atmospheric changes, nor overheated.

Sleeping out of doors is an excellent thing, and children should be kept in the

open air all day, and in freely ventilated rooms at night.

When, in spite of the best hygienic surroundings and home care, adenoid growths will develop, as they frequently do in the best-regulated families, only their removal by surgical means will free the child from this hampering condition, and give it that healthy outlook upon life which is every child's due, and which can spring only from a healthy body.

The Little Mother.

By Estelle M. Kerr.

Cuddle down, my bairnie,
For cauld and wet's the weather,
The birdie's a' hae shut their e'en,
The sheep have left the heather,
They're sleeping safely i' the fauld
So close to ane anither,
Cuddle down, my bairnie,
You're safe with little mither.

Our mither dear, is far awa',
She left us twa the gither,
She whispered when she said good-bye,
Tak' care o' baby brither,
And you're the bonnie little lad,
There ne'er was sic anither,
So cuddle down, my bairnie,
Sleep close to little mither.

--Toronto.

The Homely Girl.

By Annie Hamilton Donnell.

Mary Abby sank into the nearest seat, and closed her eyes with a little groan. She would not open them again, she resolved, until the cars started and all that pretty leave-taking out there on the platform was over. She did not want to see any more of it, not any more. It hurt. There had been no one out there to "take leave" of Mary Abby.

"I won't look! I won't look!" the girl said to herself fiercely. "If I do, I'll see somebody kissing somebody else--a mother or father or something. I can't help seeing 'em; I won't look!"

She sat, clutching her shabby hand-bag, stiffly upright on her seat. Ahead stretched nearly three dreadful days of travel. And, when she got to the end of them--Mary Abby groaned again in the bitterness of her dreary little soul. For, when she got to the end of the three dreadful days, there would be no one there to kiss her and say, "You blessed!" She had watched two people meet out on the platform, when the train first steamed into the station; and they had kissed each other, and one had said, "You blessed!" Probably everyone that was getting on to this car--that she could hear going by in the aisle--would find a "You blessed" at the other end.

"Everyone but me, but just me," thought Mary Abby. Suddenly she dropped the shabby bag, and hurried her hands over her ears, for all around her people were saying things she did not want to hear.

"Good-bye, good-bye, dear."
"O, must you go now? O, good-bye. Give me just one more!" And the girl with the bitter heart had known it was one more kiss.

"Good-bye; I shall miss you dreadfully, little girl."

"I'll write and write; good-bye, daddy, you darling!" It was then Mary Abby had shut up her ears. The daddy things hurt her most. Why must other girls call their fathers by that name that had been hers, hers? What right had they?

A raucous voice shouted: "All aboard! All aboard!" in a tone that could not be shut out by tremulous little brown fingers. Then Mary Abby felt a little jerk, another gentle one, a steady pull. They had started. The three days had begun--the dreariness, the monotony of loneliness.

Most of the people who had tramped by in the aisle must have gone on into the car ahead, for Mary Abby's car was not at all full. She got up, and moved to another seat nearer the center of the car. She wanted the "daddy" girl behind her where she need not look at her. She had known at once which one the "daddy" girl was--the one with straining neck to catch the last glimpse of "daddy" outside. Mary Abby had caught sight of her broken, tearful face. Then she had moved to the other seat.

"I want to cry!" Mary Abby thought bitterly. "I want to crane my neck to see, too! O, I want to crane my neck

and see 'daddy!' But she did not cry. The fierce blue eyes that stared fixedly ahead were quite dry.

Across the aisle was a child, sitting alone. Two seats ahead, on the other side, sat a little old person in rusty black. Beyond, a robust, bald man doing sums already in a note-book; behind, a family of five. And behind Mary Abby the "daddy" girl. Nobody looked interesting. Mary Abby hated them all impartially.

There was the diary in the shabby hand-bag, of course; she could take that out at any minute and begin to write. But write what? That the cars had started? The jerky handwriting would announce that plainly enough. That she had three days to travel? Was going to Great-Aunt Caroline? dreaded it, hated it, was miserable?

Or should she write down what had happened when she came away, how the step-baby had cried when she held him so tight; how the stepmother had not cried at all, had smiled to show how glad she was? She might write that down in the diary in her hand-bag.

"I'll begin," Mary Abby said, shutting her little white teeth hard to shut in her pain. It would be doing something, anyway. She took out the little blank book. If she sat here thinking black thoughts any longer, she might suddenly scream right "out loud," and they would put her off the cars! She couldn't go back to the step-life without daddy, or forward to Great-Aunt Caroline, walking on the track.

"March 3. On the cars," wrote up hill and down the little stub of a pencil. "Yes, I'm here. I've started; Aunt Caroline's in for me! The baby cried, but it was because I squeezed him"—Mary Abby spelled it "squeezed," but it may have been a jerk of the pencil stub. "She never cried a tear; I guess not! I suppose she was tickled to pieces. I suppose she was good-riddancing inside."

"There's a girl who calls her father 'daddy' on this train, and I hate her. That was my name! I'm glad she's going off to leave him." Mary Abby turned suddenly and looked at the "daddy" girl covertly. "No, I'm not, either—not glad, I pity her; she's crying like anything. There's a little boy all alone, and a fat man, and a lean woman, and a mother with three children and a baby. And, my, a homely girl!"

Mary Abby laughed when she wrote that, up hill and down. The homely girl was directly in front of her, at the end of the car, and looking straight at her. When she laughed, the homely girl laughed. She knew that if she were to nod in a friendly way, the homely girl would nod back.

"She's a sight!" wrote the stub of a pencil. "Shabby, just like me. Her hat's my kind o' hat, and her coat and everything. I bet she's going to her great-aunt's to live, and her stepmother was glad, too! Well, goodness knows I'm sorry for the homely girl. I wonder if she's going clear to the end o' the world too." In her heart Mary Abby was sure of it. She would have one travelling companion all the way.

The conductor came round for tickets, and the interruption sent Mary Abby's thoughts wool-gathering. She forgot the diary for a while, and sat staring blankly out of the window at the flying landscape set in its early-March frame of dreariness. Everywhere was melting snow and everywhere sombre brown tones cropping through the dingy white. It was not a cheerful scene.

The lone little boy across the aisle was whistling cheerily under his breath. The gay little tune crept over to Mary Abby, and tried to comfort her. Back in the car the family baby cried drearily under its breath, and the sound tried to hold its own with the lone little boy's tune; but cheeriness prevailed. The fat man kept on doing sums. The little old lean woman settled further into her seat in a tired way, and seemed to be making the best of it; at least, her rounded old back seemed to be to Mary Abby. Probably the "daddy" girl behind was still crying.

Mary Abby took up the diary. "We're all here still," she wrote twist-edly, "every soul of us. Maybe we're all going to the end o' the world together! It will be a nice, cheerful company; any-way, the lone little boy's cheerful. He's whistling. I know what would happen

if I whistled; the homely girl would, too. She's bound to do everything I do. I pity that girl on account of her step-mother and her dear daddy that is dead. But I don't admire her; she's a sight!

"I pity the family baby too. My, the way he cries, a poor little groany cry; not much like the step-baby's splendid little yells. I wish—I wish I could hear those.

"I'm not going to cry. I said I wouldn't, and I won't. The homely girl wants to, I know. She's aching to crumple right down in her seat, and have a good one—but she won't. I know the homely girl.

"There, she's straightening up like everything; now she's looking over toward the lone little boy—she's going over!

"She's been and got back, and you ought to see her face! It looks queer, and I don't wonder, for I know what the lone little boy told her. My seat is just across the aisle. He told her he was going to see his mother now because it was his mother's turn to have him. It's just got through being his father's turn. He lives with 'em by turns; he told the homely girl he wished they could all live together always, because it would be comfortable—that was just the word he said; I heard it. But his father never lives where his mother does. I don't wonder the homely girl's face looks like that! That's the way my face feels as if it looked. Oh, the poor lone little boy! There are worse things in the world than 'steps.'"

Mary Abby's eyes sought far-off spaces—a daddy that had been loving and tender with a little stepmother and a step-baby and a great homely girl. He had never been anything else but loving and tender. The little stepmother had been tender, too, with him, and perhaps—Mary Abby's eyes grew gentler—perhaps she would sometimes have been tender with the homely girl if—she had been given a good chance. Were homely girls always bitter and hard toward their "steps"? Was the homely girl down there at the end of the car, facing this way? She looked so. She looked exactly as if she had never given her stepmother a chance, either.

"She never has," communed Mary Abby, and pitied the homely girl's stepmother. There were so many ways one might give chances—by being a little, even a very little, tender one's self, for instance. And in her heart Mary Abby knew the homely girl had never been even a very little tender herself. She wished she had been. She and the homely girl down there at the other end of the car were getting very well acquainted.

The "daddy" girl, behind, hunched down in a lonely little heap, and sobbed herself to sleep. The lone little boy whistled; the family baby wailed himself to sleep. Night settled over the car, and the swaying lamps overhead lighted its uninteresting interior erratically. After a while only Mary Abby and the homely girl seemed to be left awake, and they sat gazing stonily at each other. They seemed both to be remembering a little step-baby they wanted to kiss in his sleep, and to be trying to hide the want from each other.

In a draught from an opening door a sheet of paper blew across from the robust bald man to Mary Abby, and she mechanically picked it up. Some of the bald man's sums—why, no! She started a little in surprise; for in big, bold writing on the sheet she read, "Take care of yourself for my sake, darling." It was a letter to somebody the bald man loved! Everybody loved somebody.

"But me," sighed Mary Abby drearily, "and the homely girl," she added with a whimsical mouth. "Just us two."

Down at the end of the car she saw the homely girl get up, and knew she was going across the aisle to carry back 'the piece of a love-letter. She knew she stopped on the way back to life the lone little boy's swinging legs to the seat, and stretch them out more comfortably. She knew the homely girl tucked her own shabby jacket in a little roll under the "daddy" girl's head, nodded in a friendly way to the family mother, who roused and shifted the baby to her other arm. All these things that the homely girl did comforted Mary Abby, and the bitterness began to ooze out of her heart a little. She nodded good-night to the homely

girl, and went to sleep herself. In a dream the little stepmother came and pleaded for a chance to be tender. "Please, Mary Abby," she said, "take the gates down and let me in!"

"If you'll bring the baby," Mary Abby stipulated in the dream.

"I will, I will! He's right here in my arms. We'll love him together, Mary Abby." It was a beautiful dream.

The next day some of the people went away, and new ones took their places. But the family and the lone little boy and Mary Abby—and, of course, the homely girl—stayed on together.

It was the ending of the second day before any of them got off the train, and then it was the lone little boy first. Mary Abby helped him get his things to-gether.

"There she is! There's my mother a-waiting!" he cried in subdued excitement, and Mary Abby had a glimpse of a quiet, sad face, lone, like the lone little boy's.

"She looks as if her husband could live with her," wrote the stub of pencil unevenly; "I wish he would! I wish there weren't sad things like that in the world—oh, sadder than 'steps,' my, yes! Perhaps, if they had their chances, 'steps' wouldn't be sad at all. I wish they'd had chances; I wish I'd given my step one!"

More and more Mary Abby wished that. The wish and the regret seemed to increase with the miles that were piling up between her and the little stepmother she had deserted. For wasn't it deserting? Hadn't daddy left them both to her to take care of—the frail little mother and the step-baby? "Because you are strong, little girl. Take good care of them for me," he had said, and gone away into the great silence happier because of it. And just at that time, in the bitterness of her sorrow, she had meant to do it. O, yes, she was strong, and she would do it.

But now she had deserted. She was deserting more and more every minute. She had gone back into the old bitterness and jealousy and hugging of her pain. When one day they grew, she decided, too great for her to bear, she had packed her trunk and come away. Great-Aunt Caroline's door had always been open to her. She would work out there just the same, and send most of the money back to the "steps," the big one and the little. In that way why wouldn't she be taking care of them for daddy? Why not? why not?

But she was not satisfied that it would be. Not in the way daddy had meant. He had meant in a tenderer, nearer way than that; he had not meant take care of them across hundreds of miles. Mary Abby caught up the stub of pencil, and began to write fiercely, crookedly, rapidly, to drown her thoughts.

"The family baby is crying again. I wish he wouldn't. I wish he would stop reminding me of the step-baby, too! I had him over here in my seat a little while ago, amusing him so his mother could rest; and he went to sleep in my arms, and felt just like the step-baby—warm and heavy up against me. His mother doesn't remind me of the step one; she isn't near as pretty, and she's fat. The step one is a little thin thing like a shadow—oh, I wish she wasn't a little thin thing! I wish she was strong like I am; then daddy would have—"

Mary Abby got to her feet stumblingly, and crossed to the family mother and the wailing baby.

"Let me take him again," she said, holding out her hands. "He'll be good with me, you see."

"Yes, I guess he will," sighed the mother gratefully. "He thinks you're Angeline; don't you, baby? He's dreadful fond of Angeline; she's his half-sister. We're going out where she is; my land, I'll be thankful when we get there! Angeline's married now; she was set on our coming out. She's rented the tenement over hers for us, and says she's going to take care of the baby the whole living time! There ain't many half-sisters like what Angeline is."

"Halves" were a good deal like "steps," O, a good deal. Angeline was a good deal like her, Mary Abby; only Angeline liked it. No, there couldn't be many "halves" like Angeline.

Mary Abby joggled the family baby on her knee, and tried not to think of Angeline, or daddies, or little thin things

TWO GOOD FARMS

\$30 per acre. \$1,200 cash, balance easy, for a dandy two hundred acres of sandy loam. 140 acres under cultivation, balance bush and pasture, in which is a spring creek. The buildings consist of two good houses; one an eight-roomed frame, one with good stone cellar, the other a comfortable five-roomed one, metalized over and having a splendid cement cellar. This house is well suited for a man or tenant. The barn is a well built, big-roofed one, 45' x 65', with comfortable stalls underneath. There is also a stove silo, 12x24, and the material is on hand for a fair-sized pigery. Two acres of choice orchard. School less than half a mile; a good town only four miles distant; three miles to a village where is a railway station, etc. This is a splendid stock farm, having lots of natural pasture, plenty of water and shade, and a good supply of tillable land for growing winter feed. It is also close enough to Toronto to get the 15c. rate for shipping milk.

\$2,000; \$500 down for 73 acres sandy loam in a good state of cultivation. The buildings consist of a comfortable six-roomed frame house, with good stone cellar, a frame barn and stable. About one acre of orchard. One and a half miles to a village, where are churches, school, store, etc.; 2 1/2 miles to railroad station, forty-five miles to Toronto.

See these farms before you buy. Full information from PHILIP & BEATON, Whitvale, Ontario.



Advertisements will be inserted under this heading, such as Farm Properties, Help and Situations Wanted, and Pet Stock.

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

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MAN AND WIFE WANTED—Man to work on the farm and wife to cook. \$40.00 per month and board. Steady year round. Also three first-class milkers, \$25.00. Wanted immediately. S. Price & Sons, Erindale, Ont.

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Notice to Reeve and Councillors

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A. LEMIRE, Proprietor, Wotten, Que.

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AUCTION SALE

OF VALUABLE

Farm Property

There will be offered for sale by Public Auction, by W. E. Stoddart, Auctioneer, at Coulter's Hotel, in the Village of Cookstown, on Saturday, the 12th day of August, 1911, at the hour of two o'clock in the afternoon, by the Hon. James S. Duff and Annie May Diawood, the Executors of the last will of James F. Diawood, late of the Village of Cookstown, deceased—Lot Number Three, in the Ninth Concession of the Township of Essa, in the County of Simcoe, containing by admeasurement Two Hundred Acres, more or less, but said to contain Two Hundred and Sixteen Acres.

The soil is a clay loam, about twenty acres in bush, and balance all cleared and fences in good repair.

On the property there are a brick house of ten rooms, hard and soft water, three large frame barns, and other outbuildings, with stone stabling under one barn, and a never-failing spring creek running across the premises; a large young orchard bearing fruit, about one acre of young pear orchard bearing fruit, and a hedge on each side of lane from road to house.

This is a very desirable property, everything arranged for comfort and convenience, situate in a good farming settlement, within one mile from church and school, and about three miles from Cookstown.

Flowing possession, with usual privileges of an incoming tenant, will be given after harvest this year, and complete possession on 1st March, 1912.

The present tenant is bound to put in this year in a farmer-like manner, 20 acres of fall wheat, and leave 25 acres in grass.

The vendors reserve the rent for the current year of the term, which expires on First March, 1912.

Ten per cent. of purchase money to be paid to the Vendors' Solicitors at time of sale, and balance in two months thereafter, without interest.

The property will be sold subject to a reserved bid, and to terms and conditions of sale to be read at time of sale.


For further particulars apply to said Executors, at Cookstown P.O., or to the undersigned Solicitors, at Alliston P.O.

Dated 6th July, 1911.

FISHER & BELL,
Solicitors for Executors.

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CURES While Horses Work or Rest

International Gall Cure is a certain, sure, quick and infallible cure for Galls, Sore Necks, Sore Backs, Sore Mouths, Cuts, Bruised Heels, etc. Will not melt and dissolve from the animal heat, but stays right where it is applied. Possesses extraordinary healing and soothing qualities. International Gall Cure is the cleanest, most antiseptic, purest and best Gall Cure on the market. We will refund your money if it ever fails to cure. Keep a box on hand as it is almost a daily need on the farm.

25c. and 50c. At all dealers.

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GNAW THIS TROUGH

Made of heavy galvanized steel, your hog cannot gnaw or damage this feed trough. So successful have these troughs stood the test during the past 5 years that we are willing to ship any size you select to your station on the understanding that you can ship them back at our expense if not first-class in every detail. We know you will be delighted with them. Send for Catalogue 22 to-day. We supply tanks in stock sizes or to order.

STEEL TANK CO., Tweed, Ont.

PLEASE MENTION THE ADVOCATE.

who needed to be taken care of. But she thought steadily on of all three of them, as she jugged the family baby. Suddenly she realized that it was no longer any use to try not to think of things.

It had been late afternoon when Mary Abby had got on the cars. It was early morning of the third day when she got off. She had been deciding to get off, all the night before, hour after hour, sitting straight up on her seat and looking straight ahead, but seeing the things that were straight behind—a thin little step-mother and the step-baby. When it was quite light out-of-doors, and the train was getting near to the Junction where she had decided to stop, Mary Abby went across the aisle, and said good-bye to the family. The family baby she caught up and hugged.

"Good-bye," she said. She was smiling. "I'm going to get off next station. I hope the baby won't cry any more. I—I wish you'd give my love to Angelina," she added with a little laugh in her throat like a sob; "I think Angelina must be splendid."

"She's great!" the family mother agreed. "Well, good-bye, my dear. You look real happy this morning; I guess your going to a good place. She does look like Angelina this minute; don't she, baby?"

Mary Abby went on down the aisle to the end of the car. Standing before the mirror there, she seemed to be fumbling with her hat; but she was looking straight into the eyes of the homely girl. They smiled back at her in the same odd, wet little way her own lips were smiling. The homely girl's lips were grave and earnest, too.

"I'm going back," Mary Abby said, "to take care of them for daddy. You'll have to come along, too!" The lips outside the mirror and inside widened to a laugh. It was evident that the homely girl had a sense of humor as well as Mary Abby.

"You've got to go too, and it's all right anyway. We're strong. She ain't; she's just a thin little thing. There's Angelina and there's us; we'll do the best we can, and maybe we'll turn into Angelines! Come on; the train's stopping." And they seemed to go away hand in hand, together, Mary Abby and the other self she had sat gazing at, and learned to know. They were going back to take care of the big "step" and the little "step" for daddy.—Christian Endeavor World.

Ilyas.

By Count Leo Tolstoy.

In the Government of Ufa there lived a Bashkir named Ilyas. Ilyas was rather poor when his father died. His father lived only one year after his son's wedding. At that time Ilyas possessed seven mares, two cows, and some twenty sheep. But Ilyas knew how to take care of his stock, and his possessions kept increasing. He and his wife worked hard from morning till night; he was the first to rise in the morning and the last to go to bed at night, and he grew richer from year to year. Thus Ilyas worked hard for thirty-five years, and amassed a great fortune.

Ilyas now had two hundred horses, a hundred and fifty head of horned cattle, and twelve hundred sheep. Workmen tended Ilyas's droves of horses and his cattle, and working women milked the mares and the cows, and prepared koumiss, butter and cheese. Ilyas had plenty of everything, and everybody in the vicinity envied his life. The people would say, "Ilyas is a lucky man; he has a great deal of everything; it isn't even worth his while to die." Good people began to make his acquaintance. And guests came to him from distant places. And he received everybody, and gave them all to eat and drink. All those that came to him got koumiss and tea and mutton. As soon as the guests came he would order to kill a ram or two, and if the number of the guests was great he ordered to kill also a mare.

Ilyas had three children—two sons and one daughter. When the time came he married them off. When Ilyas was poor, his sons worked with him, and they tended the horses and the sheep themselves; but as soon as they became rich the sons began to lead a dissolute life, and one of them took to drink. The older of his sons was killed one day in a fight, and the younger one married a proud woman, and this son stopped obeying his father,

and Ilyas had to give him his share and part with him.

Ilyas gave him his share; he gave him a house and cattle, and thus the old man's wealth decreased. And shortly after that Ilyas's sheep were attacked with disease and many of them fell. Then a poor year set in for Ilyas; there was no hay, and a great many head of cattle died during the winter. And Ilyas's possessions grew even smaller and smaller. Ilyas kept falling lower and lower, and his strength also kept declining. And when Ilyas was seventy years old he was reduced to such poverty that he had to sell his fur coats, his rugs, his saddles, his carts, then the last few head of cattle; and Ilyas remained with nothing. And he himself did not notice how everything had passed out of his hands, and now, in his declining years, he had to go to work for others. All he had was the clothes he wore on himself—his coat, his cap, and his boots, and his wife, Sham-shemagi, who was also very old. The son had gone away to a distant land, and the daughter had died, and there was nobody to help the old people.

A neighbor of theirs, Mukhamedshakh, took pity on them. Mukhamedshakh was neither poor nor rich; he led a straight mode of life and was a good man. He recalled the hospitality of Ilyas, took pity on him, and said: "Come to me, Ilyas, you and your old woman. During the summer you will work in the garden according to your strength, and in the winter you will feed the cattle, and Sham-shemagi will milk the mares and make koumiss. I will feed and clothe both of you, and will give you whatever you need."

Ilyas thanked his neighbor, and together with his wife, began to work for Mukhamedshakh. At first it seemed hard to them, but they soon got used to their new life, and the old people began to live and to work according to their strength. It was profitable for Mukhamedshakh to keep such people, because the old couple knew how to take proper care of things, and they were not lazy; they worked according to their strength; but Mukhamedshakh felt sorry as he looked at the old couple, and thought of how these high people had fallen to such a low state.

And it happened one day that kinsmen and distant guests came to Mukhamedshakh; the Mullah also came with them. Mukhamedshakh ordered Ilyas to catch a ram and kill him. Ilyas killed a ram, cooked it and sent it to the guests. The guests ate of the mutton, drank tea and started to drink koumiss. The guests and their host were seated on soft cushions and rugs, drinking koumiss out of cups, and chatting, while Ilyas got through with his work and went past the door. Mukhamedshakh noticed him and said to one of his guests: "Do you see the man who has just passed by this door?"

"Yes, I see him," answered the guest. "Is there anything remarkable about him?"

"The remarkable thing about him is that he was the richest man around here; Ilyas is his name; you may have heard of him."

"Of course I have heard of him," said the guest. "I never saw him, but his fame had travelled far and wide."

"Now he has nothing, and he is working for me, he and his old woman—she milks the mares."

Then the guest said: "May I speak to him? May I ask him about his life?" "Why not?" answered the host, and shouted: "Babai (grandpa in the language of the Bashkirs), come in; have some koumiss and call in the old woman."

And Ilyas came in with his wife. He greeted the guests and the host, made a prayer, and knelt near the door, and his wife passed behind the curtain and seated herself with the mistress of the house.

They gave Ilyas a cup of koumiss. He wished the guests and his master good health, bowed, took a sip of koumiss and put it back.

"I suppose, old man," said the guest to him, "I suppose that, looking at us, you must feel sad when you recall how you used to live before? when you think of how you live now in misery?"

And Ilyas smiled and said:

"If I were to tell you of happiness and unhappiness, you would not believe me. You had better ask my old woman; she is a woman, she will speak her mind; she

will tell you the whole truth about this matter."

And the guest said to the old woman behind the curtain:

"Well, grandma, tell me how you look upon your happiness in the past and upon your present misery."

And Sham-shemagi said from behind the curtain:

"I will tell you how I look upon it: The old man and I lived together for fifty years; we were looking for happiness, but did not find it, and here we have lived one year, since we lost everything, and we are working here, and we have found real happiness, and we need no other happiness."

The guests were surprised; even the master was surprised; he rose from his seat, drew aside the curtain to see the old woman.

Then the old woman went on:

"I am telling you the truth; I am not jesting. For a half-century we have been looking for happiness, and while we were rich we could not find it; now we have nothing left—we went to work for others—and we have found such happiness that we need none better."

"Wherein lies your happiness at present?"

"When we were rich, the old man and I never had an hour's rest; we had no time to have a good talk, to think of our souls, or to pray to God. We had so much anxiety. When guests came to us, we were worried, thinking how to treat this one or that one, what to give to this one or that one, so that no one should speak ill of us. When the guests came together we also had to look after the workmen; they are simply waiting for an opportunity to rest and to get something nice to eat, and we had to watch so as not to lose anything; we were sinning that way. Then we were afraid that a wolf might kill a colt or a calf, or that a thief might steal some of our horses. When we lay down to sleep we could not sleep, we were afraid that the sheep might choke the lambskins. We would go out at night, and no sooner would we feel relieved than a new anxiety would come over us—we would worry whether we would have enough feed for the cattle for winter. And besides this, there was no peace between me and the old man. He would say that a certain thing must be done that way, and I would say that it must be done the other way, and we would start to scold each other; we would sin that way. Thus we lived—always filled with anxiety, always sinning, and we never saw the happy life."

"And now?"

"Now the old man and I rise in the morning and we talk lovingly and peacefully; we have nothing to argue about, we have nothing to worry about; all we care for is to serve our master. We work according to our strength; we work willingly, so that our master shall have profit, not loss, through our work. When we come back from work there is dinner, there is supper for us, there is koumiss for us. If it is cold, there is a stove where we can warm ourselves, and we also have fur coats, and we have time to talk; we have time to think of our soul and pray to God. For fifty years we have been looking for happiness and we have just found it."

The guests began to laugh.

Then Ilyas said: "Do not laugh, brethren; this is not a joke, but a human life. We were foolish—the old woman and I; at first we were crying because we had lost our wealth, but now God has revealed to us the truth, and it is not for our amusement, but for your good, that we are revealing it to you."

And the Mullah said:

"These are words of wisdom, and he has told you the real truth; it is also written in the Scriptures."

And the guests stopped laughing and they became thoughtful.

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PURE-BRED Pekin and Rouen Ducks; Wyandotte Rocks; Leghorns, trios, not related, \$2.40. Satisfaction guaranteed. Wade & Sou, Sarnia, Ontario.

S.-C. White Leghorns Great layers and prize-winners. Eggs: \$1.00 per 15; a hatch guaranteed. Geo. D. Fletcher, Binkham Ont.



May be the dough had forgotten to rise.
 Or had risen quickly overnight and fallen again—
 To rise nevermore.
 'Twas weak flour, of course.
 Meaning weak in gluten.
 But FIVE ROSES is strong, unusually strong.
 With that glutinous strength which compels it to rise to your surprised delight.
 Stays risen too.
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 Feel the feel of a FIVE ROSES dough.
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 Great is the bread born of such dough—
 Your dough!
 Try this good flour.

Five Roses Flour

Not Bleached



Not Blended

LAKE OF THE WOODS MILLING COMPANY, LIMITED, MONTREAL

Pisa's Leaning Tower.

It was in 1173 that the Pisans decided to build a campanile for their cathedral in so splendid a style that the tower of the rival city of Venice should pale before it, and it was two hundred years before they completed the work which has served to illustrate the stability of inclined structures to generations of schoolboys. The tower has attracted visitors to Pisa from all parts of the world, not so much for its architectural beauty as its leaning peculiarity.

Bonanus, the first architect, commenced building in 1174, and had hardly reached a height of forty feet above the ground when he discovered that the tower was considerably out of the perpendicular. He at once made great efforts to remedy the defect, and, in order to keep the center of gravity within the building, he placed the first, second, and third storeys successively nearer the perpendicular. The subsidence still continued, and when Bonanus ceased to be the architect the tower was far from upright. After this no one was found to undertake the work for sixty years, until Benenato did so in 1234. His efforts were no more successful than those of his predecessor, and the only thing he accomplished was the addition of the fourth storey. He was succeeded by William of Innsbruck, who added the fifth and sixth storeys, and restored the structure to the perpendicular by the simple device of making the pillars of these storeys higher on one side than the other. Finding it was impossible to prevent the sinking of the foundations, he in his turn lost courage, and abandoned the unfinished structure to its fate. The building was at last finished by Tommaso, who added the bell-house on the summit, after a further lapse of nearly one hundred years.

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St. Lawrence Sugar is sold in convenient 20 pound bags—also by the pound and barrel.



The St. Lawrence Sugar Refining Co. Limited
 MONTREAL. 35



At the opening of the nineteenth century the inclination of the tower was 8.6 per cent. of its height; now it has reached 9.2 per cent. This sinking is attributed partially to the fact that the foundations are being undermined by water and partially to the fact that the imprudence of some official has allowed the opening of drains, and even the excavation of a cistern, at the base of the tower. A commission has been appointed to study the matter, and reports

that the foundation is formed of a ring exactly the size of the walls, and goes down only about ten feet below the ground—a totally inadequate depth. The situation appears to be rather serious, and, according to a writer in "Cosmos" (Paris), it has even been necessary to cease ringing the bells. Taken in time, however, there should be no difficulty in assuring the safety of Pisa's famous tower. It is a well-known fact that a sub-structure was built under the cele-

brated Washington Monument in America, and the art of the modern engineer should be quite capable of some similar feat here to arrest, if not to retrieve, the present fault. T. P.'s

Undoubtedly many more people might write for the press than do,—at least as far as practical articles are concerned. On the way through life most people find out many things that have been a decided advantage to themselves, and it is their privilege, if they be unselfish, to give these to the world through the periodicals of the day.

Many are deterred from writing for the public by the fear that they may not be able to compose nicely; yet in all practical writing there should be little cause for this apprehension. The great necessity is to write clearly, forcibly, avoiding above all things circumlocution and "fine" writing. A straight, simple exposition is always interesting and dignified, and appeals to the common sense; a bungling, roundabout one, on the contrary, is likely to be thrown aside before the second paragraph has been read, if it does not, indeed, arouse a suspicion as to the clearness of the subject in the writer's own brain. Fine writing, on the other hand, may well be left to those who have the true artist touch with the pen. The ordinary dauber in ink is likely to make sorry work of it, and the sooner he realizes that his soaring rhapsodies are only likely to produce mental nausea in his readers, the better.

It is always wise to read an article aloud before submitting it to the editorial rooms. By doing so inharmonious repetition of words, jerky or cumbrous effects, obscurities, etc., become glaringly apparent, and one has a chance to remedy them before letting the work out of his hands. It may take a little time to make corrections, but it will be time well spent.

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Write to us for "Junk Pile Pictures." They will show you how rapidly disk-filled and cheap cream separators are being discarded for Tubulars.

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The most wonderful and efficient of all beautifiers, removes without injury freckles, blackheads, discolorations, etc., leaving the skin soft, white and smooth.

If you would have a permanent complexion that will rival a baby's in purity, tint and texture, use this lotion. Sold by all dealers—\$1.50 per bottle, or sent prepaid on receipt of price.

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Largest producers of asphalt, and largest manufacturers of ready roofing in the world.

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"Do-Ho-Mania."

By Ella Wheeler Wilcox.

Good housekeeping becomes bad housekeeping when the mania for order de-thrones comfort. It becomes bad housekeeping, when a woman who is endowed with health, and brains, and heart, degenerates into a mere machine for the performance of household duties, or becomes a bundle of irritable nerves, and loses all interest in everything that does not pertain to the domestic realm. An orderly home, well systematized and clean and attractive, is an anteroom of paradise, but only when its inmates have cultivated the mental and spiritual qualities, and retained the health and disposition to enjoy and help others to enjoy the paradise.

The moment a woman relinquishes every aspiration, and gives up every accomplishment to become a "good housekeeper," that moment she is an enemy to her own highest good, and almost invariably to the happiness of her household.

There was a young girl of my acquaintance who graduated with honors from her school, and married a good, home-loving man. They might have lived happily "forever afterward," like the brides of the fairy books, if the wife had not developed what I will term "do-ho-mania." (I mean domestic or house-keeping mania.) The last I saw of the couple, the woman, still young and by nature handsome, looked like one of the witches in Macbeth, with a worn and wrinkled face, an attenuated figure, and an irritable voice, while the despondent and cowed husband was bidden to remove his shoes on the doorstep before entering his own house, lest he track the polished floor.

That sample of good housekeeping is quite sufficient to indicate what this wife and mother was in all other respects in the home. There was neither comfort nor rest nor peace in her domain. Husband and children lived in terror of musing or disarranging things, and all the order and cleanliness were for spectacular purposes.

The woman made a failure of her whole life, and left, when she died, a memory of an unhappy home for her family. Yet she died in what should have been her prime, believing she had sacrificed her life upon the altar of domestic duty, and had not been "appreciated." I have seen homes where only a broken commandment could deserve such punishment as a few moments' tardiness at meal time incurred. Better a cold lunch at a restaurant counter than a feast in such a home.

The very first requisite of a home is happiness. To make a happy home atmosphere, there must be no fear. There must be no friction or discord. The furniture must not be too good to use, the floors too beautiful to walk upon. The divans must be couches for repose, and if a tired body feels like lying down upon a mattress bed in the daytime; no terror of disarranging lace covers and wonderful shams should stand in the path to rest. I remember of reading a bit of verse once upon a time, wherein some man who had evidently suffered from too much "good housekeeping," declared his intention to marry the girl who "laughed and let things go." Perhaps he regretted his determination later, but in one line he made the proviso that

"When things got too badly mixed They'd stir around and get them fixed."

This is not a plea for disorderly homes or chafing-dish meals. It is not a plea for slovenly houses, slatternly women, or selfish husbands and children who never attempt to be prompt at the table. That extreme is worse than the other—as much worse as the reckless woman is worse than the prudent. It is merely a protest against the sacrifice of all that is beautiful in life for the sake of an "orderly home" and a varied appetizing menu.

A woman of tact and resource can manage to make her home comfortable and keep the amenities of her family appearance, while she allows with a corner of it to find her own pleasure, and the development of her own personality, and the betterment of her own and her family's life.

QUESTIONS AND ANSWERS.

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

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

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

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

Miscellaneous.

HOMESTEADING.

Could you give me the address of the Government Agent for the Northwest free-grant lands?
W. G.

Ans.—Address the Department of the Interior, Ottawa. They will give full particulars regarding homesteading. Local agents are also located in the West.

FALL SEEDING.

My fresh seeding of grass has been killed this summer. I was thinking of working a stubble field and sowing it with timothy seed this fall, thinking I may be able to cut it for hay next year. Will you please give me your advice about the matter if you think it would be a good plan. Will you tell me how to go about it, and the amount of seed to sow, and the time to sow?
C. R.

Ans.—Timothy sown after harvest, provided the season is favorable, should give good results for hay next year. It is well to sow it on the fields that have been spring seeded, so as to gain the advantage of what grass and clover has already become established. Sow the seed on the stubble and work in with the harrow. Try to get it sown just previous to a rain to insure germination. Sow it early enough to give it the benefit of the fall rains. Soon after the harvest is off is a good time. It would be well to give it a fairly thick seed. Of course, the amount would depend largely upon how much grass and clover was already growing. From six to eight pounds per acre should be thick enough, as a rule.

No longer talk about the kind of a man that a good man ought to be, but be such.—Marcus Aurelius.

The misery of this world is occasioned by there not being love enough.—Benjamin Disraeli.

There is no true prayer without some response. Invisible wires from Heaven to earth are ever vibrating with divine blessing, and when prayer touches them, the electric stream of love enters the soul.—Newman Hall.

I call that mind free which sets no bounds to its love, which is not imprisoned in itself or in a sect, which recognizes in all human beings the image of God and the rights of His children, which delights in virtue and sympathizes with suffering.—W. E. Channing.

Childhood must pass away, and then youth, as surely as age approaches. The true wisdom is to be always seasonable, and to change with a good grace in changing circumstances. To love playthings well as a child, to lead an adventurous and honorable youth, and to settle when the time arrives, into a green and smiling age, is to be a good artist in life, and deserve well of yourself and your neighbor.—Robert Louis Stevenson.

True Christianity lives, not in our belief, but in our love, in our love of God, and in our love of man, founded on our love of God.—Max Muller.

If there be lying before you any bit of work from which you shrink, go straight up to it. The only way to get rid of it is to do it.—Alexander MacLaren.

There wouldn't be so many sinners if people struggled to get into Heaven as they do to get into society.—The Gentle Cynic.

Use thy youth so that thou mayest have comfort to remember it when it hath forsaken thee, and not sigh and grieve at the account thereof. Use it as the spring-time, which soon departeth, and wherein thou oughtest to plant and sow all provisions for a long and happy life.—Sir Walter Raleigh.

Mrs. Smiles—"Do you think boys should be taught reading?"
Mrs. Miles—"Heavens, no! it is enough to hear of their mother's figures."

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Purchase now while the land is cheap. Write for map and full particulars.

GUNDY & GUNDY
703 Kent Building, Toronto, Ont.

John Wanamaker, as superintendent of his large Sunday school, had explained the lesson of the day to his school. Then he said:

"Now, if any little one wants to ask a question I will be glad to answer it if I can."

One little girl arose, and Mr. Wanamaker said: "Good! Martha, I am glad to see you have a question. What is it?"

"Please, Mr. Wanamaker, what is the price of those large wax dolls in your window?"

Lord Morley has told an amusing story of his school days. "When I was at school at Cheltenham," he said, "I once wrote what I wished to be a prize poem, but it was unsuccessful. The head master, however, said to me, 'I am glad you have composed this poem, for it shows all the elements of a sound prose style.'"

"That observation wounded me at the time," added Lord Morley, "but I afterwards was shrewd enough to perceive its full significance. Though in one sense it was an extinguisher, in another it was an incentive."

Hewitt—How did he make his fortune?
Jewett—He kept a bar.—Woman's Home Companion.

Dates of Fall Fairs, Ontario, 1911.

Following is a corrected list of Ontario fall fairs for 1911, as issued by the Agricultural Societies Branch of the Ontario Department of Agriculture, J. Lockie Wilson, Superintendent:

Aberfoyle	Oct. 3
Abingdon	Oct. 13, 14
Alfred	Sept. 26, 27
Alliston	Oct. 5, 6
Alvinston	Oct. 3, 4
Amherstburg	Sept. 20, 21
Ancaster	Sept. 26, 27
Arnprior	Sept. 7, 8
Ashworth	Sept. 29
Astorville	Sept. 20
Atwood	Sept. 21, 22
Aylmer	Oct. 4, 5, 6
Bancroft	Sept. 28, 29
Barrie	Sept. 25, 26, 27
Baysville	Oct. 4
Beachburg	Oct. 4, 5, 6
Beaverton	Oct. 3, 4
Belleville	Sept. 12, 13
Berwick	Sept. 21, 22
Bethel	Oct. 14
Binbrook	Oct. 2, 3
Blenheim	Oct. 5, 6
Blackstock	Sept. 26, 27
Bobcaygeon	Sept. 26, 27
Bolton	Oct. 2, 3
Bothwell's Corners	Sept. 28, 29
Bowmanville	Sept. 19, 20
Brampton	Sept. 19, 20
Bridgen	Oct. 3
Brighton	Sept. 28
Brinsley	Oct. 6
Brockville	Sept. 5 to 8
Bruce Mines	Sept. 27
Brussels	Oct. 5, 6
Burlington	Oct. 3, 4
Caledon	Oct. 5, 6
Caledonia	Oct. 12, 13
Campbellford	Sept. 26, 27
Carp	Oct. 4, 5
Castleton	Sept. 29, 30
Cayuga	Sept. 28, 29
Centreville	Sept. 16
Charlton	Sept. 19, 20
Chatsworth	Sept. 14, 15
Chesley	Sept. 19, 20
Clarksburg	Sept. 21, 22
Cobden	Sept. 28, 29
Colborne	Oct. 3, 4
Collingwood	Sept. 27 to 30
Comber	Oct. 10, 11
Cookstown	Oct. 3, 4
Cookville	Oct. 4
Delta	Sept. 23, 26, 27
Delaware	Oct. 4
Demorestville	Oct. 14
Desboro	Sept. 21, 22
Dorchester	Oct. 4
Drayton	Oct. 3, 4
Dresden	Sept. 23, 29
Drumbo	Sept. 26, 27
Dundalk	Oct. 12, 13
Dunville	Sept. 19, 20
Durham	Sept. 26, 27
Elmira	Sept. 26, 27
Elmvale	Oct. 4
Embree	Oct. 5
Elmsdale	Oct. 4
Emo	Sept. 21, 22
Erin	Oct. 12, 13
Essex	Sept. 26 to 28
Exeter	Sept. 18, 19
Fenelon Falls	Oct. 4, 5
Fenwick	Oct. 17, 18
Fergus	Sept. 28, 29
Feversham	Oct. 3, 4
Florence	Oct. 5, 6
Port Erie	Sept. 26, 27
Fort William	Sept. 12 to 15
Frankford	Sept. 14, 15
Frankville	Sept. 28, 29
Freelton	Oct. 4, 5
Galetta	Sept. 26, 27
Galt	Sept. 22, 23
Georgetown	Oct. 4, 5
Glencoe	Sept. 26, 27
Gordon Lake	Sept. 29
Gore Bay	Sept. 26, 27
Corrie	Oct. 7
Grand Valley	Oct. 17, 18
Gravenhurst	Sept. 14, 15
Guelph	Sept. 19 to 21
Haliburton	Sept. 28
Hamilton	Sept. 14 to 16
Hanover	Sept. 12, 13
Harriston	Sept. 28, 29
Harrow	Oct. 10, 11
Holstein	Oct. 3
Huntsville	Sept. 26, 27
Ingersoll	Sept. 19, 20
Inverary	Sept. 13
Jarvis	Oct. 3, 4
Kazawong	Sept. 28, 29
Keene	Oct. 3, 4
Kemble	Oct. 4, 5
Kemptville	Sept. 21, 22
Kilsyth	Oct. 5, 6
Kincardine	Sept. 20, 21
Kingston	Sept. 27, 28
Kinmount	Sept. 14, 15
Kirkton	Oct. 5, 6
Lakefield	Sept. 19, 20
Lakeside	Sept. 29
Lambeth	Oct. 3
Lanark	Sept. 7, 8
Langton	Oct. 14
Lansdowne	Sept. 21, 22
Leamington	Oct. 4, 5, 6
Lindsay	Sept. 21, 22, 23
Listowel	Sept. 19, 20
Lombardy	Sept. 16
London (Western Fair)	Sept. 8 to 16
Loring	Sept. 29
Lyndhurst	Sept. 14, 15
Maherly	Sept. 26, 27
Madoc	Sept. 27, 28
Magnetawan	Sept. 26, 27
Manitowaning	Oct. 2, 3
Mattawa	Sept. 27, 28
Markdale	Oct. 3, 4
Marmora	Sept. 18, 19
Markham	Oct. 4, 5, 6
Massey	Sept. 29
Maxville	Oct. 3, 4
Meaford	Sept. 28, 29
Merlin	Sept. 28, 29
Metcalfe	Sept. 19, 20
Middleville	Oct. 6
Midland	Sept. 28, 29
Mildmay	Sept. 25, 26
Milton	Sept. 26, 27
Milverton	Sept. 28, 29
Mitchell	Sept. 19, 20
Morrisburg	Aug. 30, 31, Sept. 1
Muncey	Oct. 5
McDonald's Corners	Sept. 28, 29
McKellar	Sept. 25, 26
Mt. Brydges	Oct. 6
Mt. Forest	Sept. 14, 15
Neustadt	Sept. 21, 22
Newboro	Sept. 2 and 4
New Hamburg	Sept. 14, 15
Newington	Sept. 13, 19
New Liskeard	Oct. 5, 6
Newmarket	Sept. 19 to 21
Norwich	Sept. 19, 20
Norwood	Oct. 10, 11
Niagara Falls	Sept. 28, 29
Oakwood	Sept. 25, 26
Odessa	Oct. 6
Oshweken	Oct. 4, 5, 6
Onondaa	Oct. 2, 3
Orangeville	Sept. 14, 15
Oro	Sept. 19
Orono	Sept. 14, 15
Oshawa	Sept. 11, 12, 13
Otterville	Oct. 6, 7
Owen Sound	Sept. 12, 13, 14
Paisley	Sept. 26, 27
Pakenham	Sept. 18, 19
Parham	Sept. 21, 22
Palmerston	Sept. 26, 27
Paris	Sept. 28, 29
Park Hill	Sept. 28, 29
Parry Sound	Sept. 20, 21, 22
Perth	Sept. 11, 12, 13
Peterboro	Sept. 14, 15, 16
Petrolia	Sept. 21, 22
Pinkerton	Sept. 22
Pickton	Sept. 21, 21
Port Carling	Sept. 21
Port Elgin	Sept. 28, 29
Port Perry	Sept. 14, 15
Powassan	Sept. 27, 28
Prescott	Sept. 12, 13, 14
Providence Bay	Oct. 6
Queensville	Oct. 11, 12
Rainham Centre	Sept. 21, 22
Ramona	Oct. 4
Renfrew	Sept. 20, 21, 22
Richard's Landing	Sept. 28
Richmond	Sept. 29, 30
Ridgetown	Oct. 10, 11, 12
Ripley	Sept. 26, 27
Robin's Mills	Oct. 7
Rocklyn	Oct. 5, 6
Rockton	Oct. 10, 11
Roseneath	Sept. 28, 29
Sarnia	Sept. 26, 27
Sault Ste. Marie	Sept. 20 to 22
Seaford	Sept. 21, 22
Shannonville	Sept. 16
Shelburne	Oct. 4, 5
Shelburne	Sept. 26, 27
Simcoe	Sept. 17 to 19
Smithville	Oct. 5, 6
South Mountain	Sept. 14, 15
South River	Sept. 28, 29
Spencerville	Sept. 26, 27
Springfield	Sept. 28, 29
Spruce Dale	Sept. 26, 27
Stolla	Sept. 26
Stirling	Sept. 21, 22
St. Mary's	Sept. 26, 27
Stratfordville	Sept. 20

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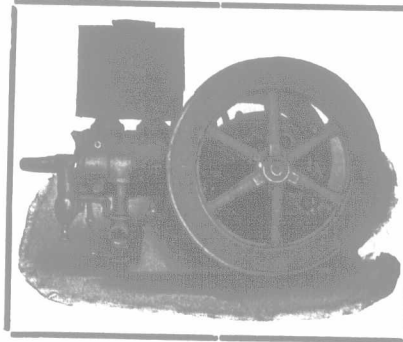


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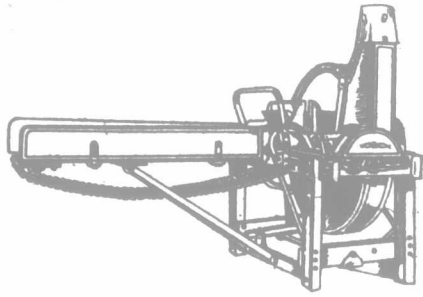
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Picture shows Model 13B, for general farm use—8 to 12 tons an hour. Style 16A handles 25 tons an hour—great for threshermen!

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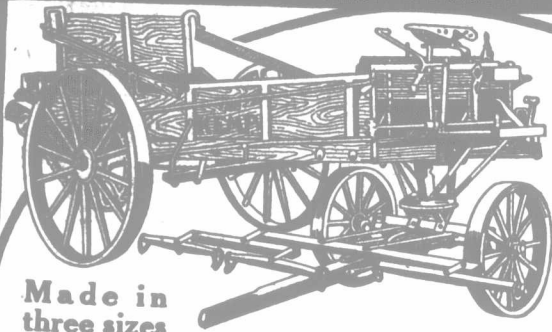
Specially-tempered knives made for us in Sheffield, England, by Spear & Jackson—knives that hold a keen edge longer than you would think possible. Model, pictured here, uses only 4 to 8 horse-power to cut and elevate 400 pounds a minute. And it is mighty hard to get it out of order—it's built to stand the racket.

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and distribute it evenly, and has one-third lighter draft than any other spreader ever built. The secret of the wonderful success of the Kemp Manure Spreader lies in the Flat Teeth used on the Cylinder Bar. Because these teeth are wide and graded, we need only have one-third as many used on other machines. This does away with the manure backing up and clogging, reduces friction on the cylinder—and correspondingly lightens draft.

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WHEN WRITING ADVERTISERS MENTION THE FARMER'S ADVOCATE.

Stratford.....	Sept. 14, 15
Sturgeon Falls.....	Sept. 22, 23
Strathroy.....	Sept. 18, 19, 20
Streetsville.....	Sept. 29
Sundridge.....	Oct. 3, 4
Sutton West.....	Sept. 28, 29
Tara.....	Oct. 3, 4
Tavistock.....	Sept. 18, 19
Teeswater.....	Oct. 4, 5
Thamesville.....	Oct. 2, 3, 4
Theford.....	Oct. 3, 4
Thessalon.....	Sept. 26
Thorold.....	Sept. 19, 20
Tillsonburg.....	Sept. 13, 14, 15
Tiverton.....	Oct. 3
Toronto (Can. Nat.).....	Aug. 26 to Sept. 11
Tweed.....	Oct. 4, 5
Underwood.....	Oct. 10
Utterson.....	Oct. 3, 4
Vankleek Hill.....	Sept. 19 to 21
Verner.....	Sept. 19, 20
Walkerton.....	Sept. 13 to 15
Wallaceburg.....	Sept. 26, 27
Wallacetown.....	Sept. 28, 29
Walter's Falls.....	Sept. 26, 27
Walsh.....	Oct. 20
Watford.....	Oct. 5, 6
Warren.....	Sept. 20, 21
Waterford.....	Oct. 5
Welland.....	Oct. 3, 4
Wellandport.....	Sept. 29, 30
Wellesley.....	Sept. 12, 13
Weston.....	Sept. 29, 30
Wheatley.....	Oct. 2, 3
Warton.....	Sept. 26, 27
Williamstown.....	Sept. 20, 21
Winchester.....	Sept. 5, 6
Windsor.....	Sept. 25 to 29
Wingham.....	Sept. 28, 29
Woodbridge.....	Oct. 17, 18
Wyton.....	Sept. 25, 26
Zephyr.....	Oct. 10
Zurich.....	Sept. 20, 21

QUESTIONS AND ANSWERS. Miscellaneous.

LAME MARE.

Mare is lame in the nigh front foot. The frog is hard, and when standing she puts the foot in front of her. She seems to have a fever in it. J. A. S.

Ans.—The symptoms indicate navicular disease, which, when well established, cannot be cured. It is possible you may effect a cure at this stage, if you give her several months' rest and blister the coronet repeatedly. Get a blister made of 2 drams each of biniodide of mercury and cantharides, mixed with 2 ounces of vaseline. Remove the shoes and pare the heels well down. Clip hair off the coronet for 2 inches high all around the hoof. Tie so that she cannot bite the part. Rub well with the blister every two days, on the third day apply sweet oil, and turn loose in a box stall or on pasture. Oil every day until the hair is again grown. Repeat the blistering every four weeks for several months.

BLADDER CAMPION—DISKING.

1. Have purchased a farm which I take possession of after harvest. It is run down, and has a lot of bladder campion on it. Will you advise me as to the best way to kill it?
2. What is your opinion of disking after harvest, and what good is it to the soil? W. G.

Ans.—1. Hay or clover fields containing this weed should be cut early to prevent seeding. Deep plowing and thorough fallowing for the balance of this season, preparatory to a hoed crop, is what is needed. Plow as early as possible, and keep the broad-shared cultivator going throughout the remainder of the season. Hoe as much of it as you can next year. Then follow a short rotation of crops which allow of deep and thorough cultivation each spring before seeding, and again as soon as the crop is removed, as, for example, peas and oats, to be cut for green fodder, followed by a hoed crop, and cereal grains the third year, and clover the fourth. Be careful not to sow seed containing the seed of this weed.
2. Disking as soon as the crop is off is, if thoroughly done, one of the best methods of working the top soil to form a mulch, which conserves moisture, sprouts the weed seeds so that they are easily killed by subsequent cultivation, and moisture being thus held, the later fall plowing can be done more quickly, more easily, and with greater efficiency. An article on this subject appeared in the issue of July 20th.

Horse Owners! Use GOMBAULT'S Caustic Balsam

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

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For the cure of Spavins, Ringbone, Curbs, Splints, Windgalls, Capped Hock, Strains or Bruises, Thick Neck from Distemper, Ringworm on Cattle, and to remove all unnatural enlargements.



This preparation (unlike others, acts by absorbing rather than blistering. This is the only preparation in the world guaranteed to kill a Ringbone or any Spavin, or money refunded, and will not kill the hair. Manufactured by Dr. Frederick A. Page & Son, 7 and 9 Yorkshire Road, London, E. C. Mailed to any address upon receipt of price, \$1.00. Canadian agents:

J. A. JOHNSTON & CO., Druggists, 171 King St., E. TORONTO, ONT.

Fistula and Poll Evil

Any person, however inexperienced, can readily cure either disease with Fleming's

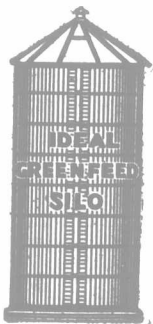
Fleming's Vest-Pocket Veterinary Adviser. Write us for a free copy. Find out pages, covering more than a hundred veterinary subjects. Durable bound, indexed and illustrated. FLEMING BROS., Chemists 78 Church St., Toronto, Ontario

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

PLEASE MENTION THE ADVOCATE.

The IDEAL Green Feed Silo

**NOT AN EXPERIMENT
BUT A TIME-PROVEN FACT**



Don't waste your time and money on an experiment. Our silos have been tried and proved for years. Are built from lumber thoroughly treated with a specially-prepared wood preservative, and have other important points of superiority. Free catalogue on application.

THE OLDEST COMPANY IN CANADA
BUILDING SILOS.

Canadian Dairy Supply Company, Limited
592 St. Paul Street, Montreal.



Union Horse Exchange

UNION STOCK YARDS,
TORONTO, CANADA.

The Great Wholesale and Retail
Horse Commission Market.

Auction Sales of Horses, Carriages and Harness
every Monday and Wednesday. Horses and Harness
always on hand for private sale. The only horse exchange
with railway loading chutes, both G. T. R. and C. P. R., at
stable doors. Horses for Northwest trade a specialty.
J. HERBERT SMITH, Manager

Imp. Clydesdale Stallions and Fillies for Sale

Second shipment since March. Stallions from \$500 up to \$5,000.
Fillies and mares in foal, from \$250 up to \$600. Don't be
fooled or misled, but come here and convince
yourself. 'Phone connection.

J. & J. SEMPLE, Milverton, Ont., and Lu Verne, Rock Co., Minn., U. S. A.

Ormsby Grange Stock Farm, Ormstown, P. Que., Canada

IMPORTED CLYDE FILLIES

Owing to the rough voyage experienced by my May importation only six were offered for sale, and were sold. The balance, consisting of two three-year-olds, one four-year-old, two two-year-olds and six yearlings have now completely recovered condition. These, with a few home-bred ones, including two yearling stallions of great promise, are now for sale at very low prices, considering their quality and breeding. Don't miss this opportunity of securing heavy-boned, highly-bred young ones cheaper by far than you can import them. Terms liberal.



A FEW CLYDESDALE SELECTS LEFT.

I have one 6-year-old Clydesdale stallion that is hard to beat for size, quality and breeding; 6 others, rising 3 years, that are big, drafty, character colts, and bred the best; 3 Percherons rising 3. There is no better selection in Canada, nor no better prices for a buyer.

T. D. ELLIOTT, BOLTON, ONT.

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

We have for service this season the Champion Imp. Clydesdale stallions Netherlea, by Pride of Blacon, dam by Sir Everard; also Lord Aberdeen, by Netherlea, and the Champion Hackney stallion Terrington Lucifer, by Copper King. For terms and rates apply to the manager.

T. B. MACAULAY, Prop., ED. WATSON, Manager.

JUST ONE 3-year-old Clydesdale Stallion

left. A well-bred colt that will make a ton horse. Price right for quick sale.

BARBER BROS.
GATINEAU PT., QUEBEC.

IMPORTED CLYDESDALE FILLIES

My latest importation arrived June 6, 1911, ranging in ages from 1 to 4 years, and are all of good quality and large type. Have also a couple of stallions for sale at right prices. Long-distance phone.

GEORGE G. STEWART, Howick, Que.

NEW IMPORTATION OF CLYDESDALES

Just arrived. A grand lot of fillies and stallions. Everything that could be desired as to size and quality. 'Phone connection.

JOHN A. BOAG & SON, QUEENSVILLE, ONT.

Robert Miller, Stouffville, Ont., Can supply young bulls and heifers of the very choicest breeding, and of a very high class, at prices that you can afford to pay. The young bulls are by one of the greatest sons of Whitehall Sultan. They are good colors, and will make show bulls. I also have two good imported bulls at moderate prices and of choice breeding, and some cows and heifers in calf to Superb Sultan; the calves should be worth all the cows will cost. Some beautiful young imported Welsh Ponies still to spare. It will pay you to write, stating what you want. Glad to answer inquiries or show my stock at any time. Business established 74 years.

Pleasant Valley Farm Shorthorns—Herd headed by Scottish Signet, and consisting of females of the leading Scotch families. Have for sale several good young bulls; also cows and heifers. Correspondence solicited. Inspection invited.

GEO. AMOS & SONS, MOFFAT, ONTARIO

Farm 11 miles east of Guelph, C. P. R., half mile from station.

Shire Stallions and Mares, Shorthorn Cattle (both sexes); also Hampshire Swine. Prices reasonable. Porter Bros., Appleby, Ont., Burlington Sta. 'Phone.

Scotch Shorthorns FOR SALE: 14 blocky, low-down bull calves, from 6 to 11 months old, all from imported stock. 20 yearling and two-year-old heifers of best Scotch breeding; also one imported bull, an extra sire. Farm 1/4 mile from Burlington Jct. Sta. Mitchell Bros., Burlington, Ont.

Salem Shorthorns I am offering a number of heifers, different ages, for sale. They are bred in the purple and should interest any body in search of the right kind. J. A. WATT, SALEM, ONT., ELORA STATION.

QUESTIONS AND ANSWERS. Veterinary.

STOCK QUESTIONS.

1. A team of mares have a sore on top of their necks where the collar sits. They have no sore shoulders, and their collars seem to fit well. They have been working steadily. The sores are soft, but not raw.
2. A yearling mare has a bog spavin. Is there any cure? If so, what is it?
3. A middle-aged mare came in season every two weeks. What was the cause, and could you give a cure? She was bred each time.
4. A cow would not give milk out of one of her teats after she had been milking a week. She was milked, and her bag bathed in hot water. We have done this for a couple of weeks and she is no better. Will she get better in time?

J. F. M.

Ans.—1. Put a hot bran poultice on the sore necks each night for two or three nights. Get one ounce of acetate of lead and mix with a pint of water, and wet the sores with the mixture three or four times a day.

2. Apply to the bog spavin a blister composed of one dram of biniodide of mercury mixed into a paste with one ounce of lard. Rub the blister in well for thirty minutes. Repeat in two months if necessary.

3. Nothing can be done for a mare that comes in season at irregular intervals, except giving good food and regular exercise.

4. There is probably some growth in the milk duct. The use of a milking-tube might be of benefit. Such tubes are usually kept in stock in drug stores. If the cow is a valuable animal, it will pay to consult some competent veterinary surgeon.

DIFFICULT URINATION.

Horse has had a lot of trouble with his water. He is a young horse; will weigh about 800 lbs., and is very ambitious. He will go sometimes two or three days without making water, and then when he does, he nearly always does it inside his sheath. This water is of a very dark color at times, and at other times it looks about right. I have given him spirits of nitre several times, but it does not appear to remedy it much, and I am at a loss to know what to do.

1. What is the trouble with this horse?
2. Is it kidney disease?
3. What remedy would you recommend?
4. What is the cause of this horse making water inside his sheath?
5. Is there a cure for it?

L. G. M.

Ans.—It is not possible for a horse to retain the urine for two or three days without showing signs of intense pain. The chances are he urinates at night when you do not see him. Some horses will not protrude the penis through the sheath in the act of urination, and nothing can be done to make them do so, except keeping the parts thoroughly clean. Wash out the inside of the sheath with warm water and soap, then smear your hand and arm with oil, insert your arm well up in the sheath, grasp the end of penis and gently draw it down. Sometimes a bean-like formation is found in the opening into the penis. If such is present remove it, and smear the whole organ with oil. It may be necessary to wash out every five or six weeks to keep the parts clean if he refuses to draw the penis when urinating. An occasional dose of sweet nitre will aid in keeping him right.

GOSSIP.

Volume 22, of the Hampshire Down Flockbook, has reached "The Farmer's Advocate" office, from the Secretary, J. E. Rawlence, The Canal, Salisbury, England. For Hampshire sheep-breeders it contains a very complete and valuable fund of information, including flock records and ram entries from A611 to B798. The Association makes a specialty of Shepherd's Prize competitions for rearing the largest percentage of lambs and of ewe tegs.

SUMMER COMPLAINT

Is one of the most troublesome troubles of the Hot Summer Days. The Old and the Young, the Strong and the Weak are all affected alike.

DR. FOWLER'S Extract of Wild Strawberry

Is the most effective remedy known for the cure of

DIARRHŒA, DYSENTERY, COLIC, CRAMPS, CHOLERA MORBUS, CHOLERA INFANTUM, AND ALL SUMMER COMPLAINTS.

This sterling remedy has been on the market for over 65 years and has yet failed to do what we claim for it.

Be sure and ask for Dr. Fowler's and insist on being given what you ask for.

Mrs. C. E. Mills, Teulon, Man., writes "Just a line to let you know that I have a little girl five years old, and during the hot weather of last summer she was very bad with the Summer Complaint, in fact I thought we were going to lose her. We tried everything we could think of but without success. One day one of our neighbors asked what was the trouble with the little girl, and we told him. He advised us to try Dr. Fowler's Extract of Wild Strawberry, which we did. I honestly believe it was the only thing that saved my little girl's life. I don't think there is anything better for Summer Complaint than Dr. Fowler's Extract of Wild Strawberry." Price 35c. Manufactured only by The T. Milburn Co. Limited, Toronto, Ont.



ABSORBINE

will reduce inflamed, swollen joints, Bruises, Soft Bunches, Cure Boils, Poll Evil, Quitor, Fistula or any unhealthy sore quickly, pleasant to use; does not blister under bandage or remove the hair, and you can work the horse. \$2 per bottle delivered. Book 7 E free. ABSORBINE, J.R., Liniment for man, kind. Reduces Painful, Swollen Veins, Gout, Wens, Strains, Bruises, stops Pain and Inflammation. Price \$1.00 per bottle at dealers or delivered. Will tell you more if you write. Manufactured only by W. F. YOUNG, P. D.F., 208 Evans Bldg., Montreal, Ca.

Aberdeen-Angus Cattle—Any number of females for sale at easy prices and terms. Correspondence invited. Glengow Stock Farm. GEO. DAVIS & SONS, Props. Alton, Ont.

Aberdeen-Angus Cattle—Stock all ages, and both sexes, good strains, at reasonable prices. Apply to ANDREW DINSMORE, Manager. "Grape Grange" Farm, Clarksburg, Ont.

ABERDEEN - ANGUS Will sell both sexes; fair prices. Come and see them before buying. WALTER HALL, Drumbo station. Washington, Ont.

WILLOW BANK STOCK FARM

Shorthorns and Leicesters Herd established 1855, flock 1848, have a special good lot of Shorthorns of either sex to offer of various ages; also a grand lot of Leicester sheep of either sex—a few imported ones to offer. JAMES DOUGLAS, Caledonia, Ontario.

Maple Lodge Stock Farm

1854-1911 A splendid lot of Leicesters on hand. Shearlings and lambs sired by imported Wooler, the champion ram at Toronto and London, 1910. Choice individuals and choice breeding.

A. W. SMITH, Maple Lodge, Ont.

Shorthorns Choice selections of bulls and heifers at all times for sale at very reasonable prices. Robert Nichol & Sons, Hagersville, Ont.

Scotch Shorthorns FOR SALE—Three choice young Scotch bulls fit for service; two roans and one red. Bred from imp. stock, also females of all ages. Bell phone. A. C. Pettit, Freeman P. O., Ontario

Fletcher's Shorthorns and Yorkshires Stock for sale of either kind or sex. GEO. D. FLETCHER, Binkham P. O. Erin Station, C. P. R.

One Million Concrete Blocks For One Farm!

This shows what farmers think of "Ideal" Concrete Blocks and Machines. On the magnificent estate of an Ohio millionaire, one million concrete blocks are being made for building sixteen residences, twelve barns, four 50 foot silos, power houses, chicken houses, etc. — and four miles of concrete fence.

"IDEAL" FACE DOWN CONCRETE BLOCK MACHINES

have displaced TWENTY MILLION BRICKS on this one job alone—because they make the blocks right on the spot—save freight and hauling—save time and hard work—and make more durable buildings that are absolutely fireproof.

An "Ideal" Machine will pay for itself on your farm—and you can make a profit out of it by turning out concrete blocks for the neighbors.

Write us for catalogues and full particulars.

IDEAL CONCRETE MACHINERY CO. LIMITED
Dept. A, LONDON, Ont.

Reliable and energetic agents wanted in every locality.



Scotch-bred SHORTHORNS!

During the present month am offering four very choice young bulls, ready for service, of the best breeding and quality, at very reasonable prices. Also some good young cows and heifers, with calves at foot.

H. J. Davis, Woodstock, Ontario
Long-distance Bell phone.



Glenburn Stock Farm

A few Shorthorn heifers about a year old; good colors and individuals. Berkshire pigs of the Large English sort.

JOHN RACEY,
Lennoxville, Quebec

Shorthorns and Swine—Am now offering a very choice lot of cows and heifers, safe in calf, and some choice young bulls for the fall trade; also Berkshire and Yorkshire pigs; showyard material.

ISRAEL GROFF, Elmira, Ont.

BESTS.

- The best law—the golden rule.
- The best education—self-knowledge.
- The best philosophy—a contented mind.
- The best war—to war against one's weakness.
- The best theology—a pure and beneficent life.
- The best medicine—cheerfulness and temperance.
- The best music—the laughter of an innocent child.
- The best science—extracting sunshine from a cloudy day.
- The best telegraphy—flashing a ray of sunshine into a gloomy heart.
- The best biography—the life that writes charity in the largest letters.
- The best engineering—building a bridge of faith over the river of death.
- The best navigation—steering clear of the lacerating rocks of personal contention.
- The best mathematics—that which doubles the most joys and divides the most sorrows.



YOU don't have to SCRUB the hands when you use "SNAP". It removes all stains and dirt, QUICK.

"S-N-A-P" is the original and genuine antiseptic hand cleaner. 15c. a can.

GOSSIP.

Duncan Brown & Sons, of Iona, breeders of Shorthorn cattle and Oxford Down sheep, report this season as a record-breaker for extreme heat and short pasture, but notwithstanding this, their cows, which are bred for milk-production as well as for beef, have kept up their flow of milk remarkably well. The stock bull, Trout Creek Wonder, is keeping up his reputation of being one of the great stock bulls of the present time, and his calves are coming large, with fine, mossy coats, the right kind to become thick-fleshed individuals of first quality. Seven young bulls from six to fourteen months of age, and suitable for herd-headers, are for sale at easy prices.

MORE LEICESTERS FOR CANADA.

Since the beginning of the year, twenty-one Border-Leicester sheep have been shipped from their native land to Canada. Some time ago, A. M. Montgomery shipped eleven to this country, and during the second week of July, Thos. McIntosh forwarded a select lot of ten, Mr. Douglas, of Willow Bank Stock Farm, Caledonia, being the purchaser. This lot includes a shearing ram, two shearing ewes, three ram lambs, and four ewe lambs, all sired by noted prizewinning sheep on the other side of the water.

Mr. Whitelaw, of Guelph, has purchased from T. & M. Templeton, Sandyknowe, Kelso, a shearing ram, and a shearing ewe, for show-ring purposes.

HIS SON'S VOCATION.

A great many farmers are in the city at the present time trying to find help among the crowds of immigrants arriving from the Old Land, and the following story is told of one man. He had been listening to a conversation between business men, who were themselves natives of rural districts, but who regretted the tendency of farmers' sons to seek employment in the city when the great free life of the country could be theirs.

"I dunno that there's as much of it as you think," said the old farmer, "I had six boys, and all except one either have farms near me or else out West."

"What about the other lad?" asked a city man.

"Oh, he simply couldn't abear farming. He just naturally seemed to hate that sort of work, and he never knew how to go about it. If he wanted to drive a cow out of the garden, he had to run in and read how to do it out of a book."

"I suppose he took up a profession," surmised one of his listeners.

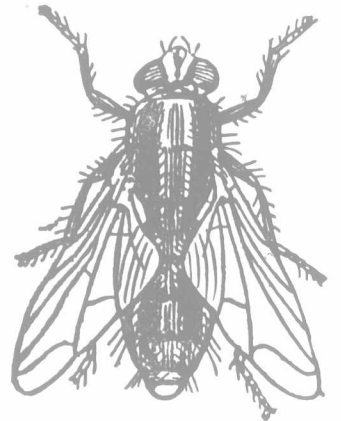
"No, he had a gift for writing," declared the proud father, "he's doing mighty well on the staff of a weekly paper. He runs a section about 'hints to farmers,' and 'advanced notions in agriculture,' and advises young men to get back to the land."—Toronto Saturday Night.

BUENA VISTA OXFORD DOWN SHEEP

The renowned flock of Oxford Down sheep, known as the Buena Vista flock, the property of J. Cousins & Sons, of Harriston, Ont., were looking in their usual good form when visited by a representative of "The Farmer's Advocate" a few days ago. Oxford Down sheep are rapidly gaining in popularity in this country, many new flocks are being founded every year, a very large percentage of them on sheep purchased from this noted flock, some of the best show flocks in Canada had their origin from sheep bred by the Messrs. Cousins, due in a very large measure to the reputation the firm have for careful selection of flock-headers, regardless of cost. For very many years, the best available imported stock rams have been used, winners before being shipped, and winners in this country. The natural result of this strong infusion of new blood is a flock of big, strong, well-covered sheep, true to the breed's ideal of type. This year's lambs are the get of Imp. Hamtonian 136, a massive, thick ram, up to 350 lbs. in weight. He is now four years old, vigorous as a yearling, and is for sale, a bonanza for the flock owner fortunate enough to get him. Orders are now being booked for young rams. The firm also offer for sale a number of Shorthorn heifers of various ages, bred on milk-producing lines, a big, strong lot.

The flies that are now in your kitchen and dining room were probably feasting on some indescribable nastiness less than an hour ago, and as a single fly often carries many thousands of disease germs attached to its hairy body, it is the duty of every housekeeper to assist in exterminating this worst enemy of the human race.

WILSON'S FLY PADS



Kill flies in such immense quantities as cannot be approached by any other fly killer.



ARTHUR J. HOWDEN & CO
ARE OFFERING

15 High-class Scotch Shorthorn Heifers

At moderate prices, including Cruickshank Non-pareils, Cruickshank Villages, Marr Emmas, Cruickshank Duchess of Glosters, Bridesmaids, Bruce Fames, Kinellars, Clarets, Crimson Flowers, and other equally desirable Scotch families, together with a member of the grand old milking Atha tribe, which have also been famous in the showing.

Arthur J. Howden & Co., Columbus, Ont.



SHORTHORNS

Sold out of Bulls. Would be glad to have your inquiries for anything else.
CATALOGUE ON APPLICATION.

JOHN CLANCY, H. CARGILL & SON, Proprietors,
Manager, Bruce Co., Cargill, Ont.

Shorthorns and Clydesdales

PRESENT SPECIAL OFFERING:

Seven choice young Scotch bulls, from 9 to 15 months; 25 cows and heifers of choicest breeding. This lot includes some strong show heifers for the yearling and two-year-old classes. A pair of imported Clyde fillies, two and three years old (bred).

W. G. PETTIT & SONS, Freeman, Ont.

Long-distance phone.

Burlington Jct. Sta., G. T. R., ½ mile from farm.

WILLOWDALE STOCK FARM HAS NOW FOR SALE

a choice lot of young stock of each of the following breeds:

Clydesdales, Shorthorns, Chester Swine, Shropshire Sheep

Some extra good young bulls, descendants of Joy of Morning and Broad Scotch.

Write for prices and catalogue to: **J. H. M. PARKER, Prop., LENNOXVILLE, QUE.**

High-class Shorthorns I have on hand young bulls and heifers of high-class show type, pure Scotch and Scotch-topped, sired by that sire of champions, Mildred's Royal. If you want a show bull or heifer, write me. **GEO. GIER, GRAND VALLEY P. O. AND STATION, ALSO WALDEMAR STATION.**

SPRING VALLEY SHORTHORNS If you want a good Shorthorn bull, we have them. Canadian-bred and imported. Females all ages. Also a few good YORKSHIRES—boars and sows. Prices right. Phone connection. **Kyle Bros., Ayr, Ont.**

ELMHURST SCOTCH SHORTHORNS AND LARGE ENGLISH BERKSHIRES

H. M. VANDERLIP, Importer and Breeder, **Calmsville, Ont.** Langford Sta. Brantford & Hamilton Radial in sight of farm. Bell phone

Springhurst Shorthorns and Clydesdales

I am now offering a number of heifers from 10 months to 3 years of age. Anyone looking for show material should see this lot. They are strictly high-class, and bred on show lines. Also several Clydesdale fillies, imp. sires and dams, from foals 2 years of age off. **Harry Smith, Hay, Ont., Exeter Sta.**

Scotch Shorthorn Females for Sale I am offering, at very reasonable prices, females from one year to five years of age. The youngsters are by my grand old stock bull, Scottish Hero (imp.) = 55042 = (90065), and the older ones have calves at foot by him, or are well gone in calf to him. Their breeding is unexcelled, and there are show animals amongst them. **A. EDWARD MEYER, Box 378, GUELPH, ONT.**

"The Manor" Scotch Shorthorns

Present offering: 1 choice yearling bull, an "Undine," g. dam imp. Young cows in calf. Yearling heifers: Clippers, Minas, Wimples, Julias, etc. Inspector solicited. Prices moderate. Phone connection.

J. T. GIBSON, DENFIELD, ONTARIO

OAKLAND SHORTHORNS

Our herd, numbering about 50 head, should be inspected by any intending purchasers. Many of the cows are excellent milkers and grand breeders. Many young heifers and a few bulls for sale. Scotch Grey = 72692 = at head of herd, is one of the best bulls in Ontario. Prices reasonable.

JOHN ELDER & SON, HENSALL, ONT.

Brampton Jerseys

cows and some calves for sale. Production and quality.

B. H. BULL & SON, BRAMPTON, ONT.

High Grove Jerseys No better blood in Canada. Present offering: Two choice young solid-colored bulls about 15 months old, out of heavy-producing dams. **ARTHUR H. TUFTS, P. O. Box 111, Tweed, Ont.**

DON JERSEYS!

Contains more of the blood of Golden Fern's Lad than any other Jersey herd in Canada. For sale are heifer calves from 4 to 9 months of age, and young bulls from calves to 1 year.

DAVID DUNCAN, DON, ONT.,
Duncan Station, C. N. R. Phone connection.

When Writing Mention Advocate

QUESTIONS AND ANSWERS. Miscellaneous.

SHEEP AT LARGE.

Township Council has by-law prohibiting all animals running at large; also another by-law allowing sheep the privilege of the highways. Four sheep strayed into my premises and will not leave, destroying crops. Council says I can neither impound or inclose and advertise them—that I must have a lawful fence and gates closed, or pasture all the sheep that come along. Has Township Council such power—and what can I do?

A SUBSCRIBER.

Ans.—We are inclined to think that if the by-law granting privilege in respect of sheep goes no further than you state, you may have a right of action against the owner of the sheep for damages for trespass in allowing them to stray beyond the highway, and upon your lands to the injury of your crops. But we would suggest that before taking such action you should consult a solicitor and have him closely examine the municipal by-laws in question and advise you in respect of same and the case generally.

HOMESTEADING.

- 1. How could I get a homestead?
2. What would be the least I could start one for?
3. What would be the duties I would have to perform at getting one?
4. Do you think I could get one near Saskatoon?
5. What would be the best time to get one?
6. What about Northern Ontario; do you think I could start a homestead cheaper there and with better results?

E. L.

Ans.—1 and 3. The easier way of getting a Dominion homestead is to apply to the Department of the Interior, Ottawa. They will give full particulars, and the individual can make a selection of the several districts. The Department will also give all particulars as to duties to perform. Some get good homesteads by being on the spot when a certain district is opened for homestead entry, but it is a strenuous way of getting the quarter-section that the individual wants, and there is always a chance that someone else may have gotten in ahead. The homesteader must live six months in each year, for three years, on his homestead. Twenty-five acres must be broken the first year, and thirty acres must be broken and twenty acres cropped before the patent is issued.

2. This depends on whether you do your own breaking or hire it done, and how much stock and implements you buy. The Department of the Interior can also give you information regarding money required.

4. To get a homestead now in the Saskatoon district, it will be necessary to go anywhere from 40 to 50 miles from the town of Saskatoon.

5. If you contemplate being on the spot to select your quarter-section, you must be there when the district is thrown open. If you get one by applying to the Department, the time of year makes little difference, only it might be better to look over the district before locating. Would suggest that you work a summer in the West and look around a little. The spring is a good time to take out a homestead.

6. Northern Ontario offers good opportunities now, and a homestead might be started there just as cheap as, if not cheaper than in the West. Of course, much of this Northern land is timbered, and must be cleared, while all the prairie requires is breaking, but timber is worth money, and the Northern Ontario soil is said to be very fertile. The results obtained in either section of the country depend largely on the settler himself, many doing well in either place, while some make failures. In New Ontario the homesteader must pay 50 cents an acre for his land, besides fulfilling the homestead duties.

Senator Money, of Mississippi, asked an old colored man what breed of chickens he considered best, and he replied:

"All kinds has merits. De white ones is de easiest to find, but de black ones is de easiest to hide aftah you gits 'em."

FAIRVIEW FARMS HERD - HOME OF: Pontiac Korndyke, the only bull living that is the sire of four 30-pound daughters, and the sire of the world's record cow for seven and thirty days. Rag Apple Korndyke, sire of eight A. R. O. daughters that, at an average age of 2 years and 2 months, have records that average 17 1/4 lbs. each, and over 4.2% fat for the eighth. Three of them made over 20 lbs. each. Sir Johanna Colantha Gladi, whose dam and sire's dam average 33.61 lbs. each at 7 days, which is higher than can be claimed for any other sire of the breed. We are offering some splendid young bulls for sale from the above sires, and out of daughters of E. H. DOLLAR, (near Prescott) HEUVELTON, NEW YORK

HOLSTEINS AND YORKSHIRES

More high-record cows in our herd than in any other in Canada, including the champion Canadian-bred three-year-old, and the champion two-year-old of the world for yearly production. The sire of these champions is our main stock bull. We have a large number of heifers bred to him that will be sold right to make room for our natural increase. Also bull calves for sale. We are booking orders for spring pigs, also sows safe in pig. We invite inspection of our herd. Trains met at Hamilton when advised. Long-distance Bell phone 2471 Hamilton.

D. C. LATT & SON, MILLGROVE, ONT. R. F. D. NO. 2

LAKEVIEW HOLSTEINS

Can offer service bulls and bull calves sired by Count Hengerveld Fayne De Kol, and out of dam with official records from 20 to 24 pounds butter in 7 days. Write for catalogue giving full particulars, or, better still, come and see them. Telephone.

E. F. OSLER, BRONTE, ONTARIO

CENTRE AND HILLVIEW HOLSTEINS

Offers two June bulls, nicely marked, out of Record of Merit dams and Bonheur Statesman, whose daughters are testing high price of these; \$70.00 each f.o.b. Woodstock. Also younger ones. Long-Distance Telephone. P. D. Ede, Oxford Centre P.O., Woodstock Stn.

Silver Creek Holsteins We are now offering about a dozen yearling heifers and 3 young bulls. They are all of superior type, and 7-day records that average 27 lbs., is at head of herd. A. H. TEEPLE, CURRIES P. O., Ont. Woodstock Station. Phone Connection.

Springbrook Holsteins and Tamworths A choice bull calf, sired by Brightest Canary, whose two nearest dams average over 26 lbs. butter in a week. Dam, a four-year-old, record of over 12,000 lbs. milk in one year. 25 fine young Tamworths two weeks old; sire and dam imported; best quality; booking orders at \$8 for quick sale. A. C. HALLMAN, BRESLAU, ONTARIO.

Holstein Bulls

From high-class, officially-tested cows. Ready for service. Also bull calves. R. F. Hicks, Newton Brook, Ont., York Co. Toronto Shipping Point.

Ayrshires and Yorkshires Special offerings at low prices from the Menie district: Bulls fit for service, 1911 calves. Dams of all ages; some with good official records; others, if their owners entered them, would make good records. Many females, any desired age. A few young Yorkshires. ALEX. HUME & CO., MENIE, ONT.

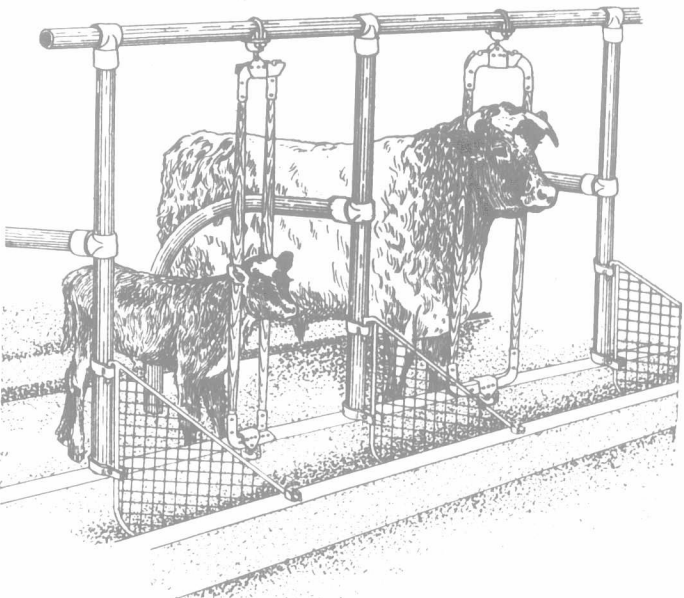
HILLCREST AYRSHIRES.—Bred for production and large teats. Record of performance work a specialty. Fifty head to select from. Prices right. FRANK HARRIS, Mount Elgin, Ont.

STONEHOUSE Ayrshires The champion Canadian herd for 1910 at the leading shows. 32 head imp., 56 herd to select from. R.O.P. official records, the best and richest bred types of the breed. Anything for sale. Young bulls, females all ages. HECTOR GORDON, HOWICK, QUE.

Choice Ayrshires Good teats, heavy producers and high testers. Prices low considering quality. White Wyandottes, \$2 each. WILLIAM THORN, Trout Run Stock Farm, Lynedoch, Ont. Long-distance phone in house.

Just Landed 45 two-year-old Ayrshire heifers, all bred to freshen in September and October. They are a beautiful, strong lot, with plenty of teat. Also 12 bulls fit for service, and a few yearling heifers. R. R. NESS, HOWICK, QUEBEC.

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The SUPERIOR, the only stanchion that will tie from your smallest calf to your largest export steer.

THE SUPERIOR WAY of stabling cattle is the only way that will reduce the stable labor, time and money problem to a minimum. 1st. They cost no more than the old method of stabling your cattle, and will outwear three of the old style. 2nd. You can tie ten head of stock while you would be tying one the old way, and you run no risk of getting your ribs broken or injury in any way. 3rd. You cut the feeding and cleaning-out work in two. 4th. Your cattle have the maximum of freedom consistent with cleanliness. 5th. The SUPERIOR WAY makes stable drudgery a pleasure. Our book on Stable Equipment gives the most modern, practical, business-getting ideas of the leading stock and dairymen of to-day. Send for it. It is free. Simply fill in the coupon and mail it to-day.

The Superior Barn Equipment Co. FERGUS, ONTARIO

Dear Sirs.—Please send me your book on Stable Equipment, which is to be sent free.

Name
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Are you building or remodeling, when?
How many cattle do you stable?

Boog Spavin

Cure the lameness and remove the bunch without scarring the horse—have the part looking just as it did before the blemish came.

Fleming's Spavin Cure (Liquid) is a special remedy for soft and semi-solid blemishes—Bog Spavin, Thoroughpin, Splint, Curb, Capped Hock, etc. It is neither a liniment nor a simple blister, but a remedy unlike any other—doesn't irritate and can't be limited. Easy to use, only a little required, and your money back if it ever fails.

Fleming's Vest-Pocket Veterinary Adviser describes and illustrates all kinds of blemishes and gives you the information you ought to have before ordering or buying any kind of a remedy. Mailed free if you write. FLEMING BROS., Chemists 78 Church St., Toronto, Ontario

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COURT LODGE, EGERTON, KENT, ENGLAND Exporters of pedigree live stock of all descriptions.

FACILE PRINCEPS.



Rock Salt, \$10.00 ton. Toronto Salt Works, 128 Adelaide St. E., G. J. CLIFF, MANAGER. Toronto, Ont.

HOLSTEINS

MUNRO & LAWLESS

Elmdale Farms, Thorold, Ont.

THE MAPLES HOLSTEIN HERD

Everything of milking age in the Record-of-Merit. Nothing for sale at present but a choice lot of bull calves sired by King Posch De Kol. Write for prices, description and pedigree.

Walburn Rivers, Falden's, Ontario

MINSTER FARM

Holsteins and Yorkshires R. HONEY, Brickley, Hastings St., Northumberland County, offers bull calves from R. O. P. cows, and from a son of Count Hengerveld Fayne De Kol, also boars and sows ready to mate.

Lake View Dairy Farm I have several of noted Francy breeders—also daughters of Sir Admiral Ormsby. Present offering: Bull calves and heifers. W. F. BELL, BRITANNIA BAY, ONTARIO.

Holstein Cattle—The most profitable dairy breed. Illustrated descriptive booklets free. Holstein-Friesian Ass'n of America. F. L. HOUGHTON, Seely, Box 127, Brattleboro, Vt.

Every man is the architect of his own fortune.—Pseudo-Sallust.

**Nervous Prostration
Sleeplessness
Palpitation of the Heart
Dizzy Spells**
Are all Cured by the Use of
**MILBURN'S
HEART and NERVE PILLS**

Mr. Peter Halstad, Tilley, Alta., writes "I take great pleasure in writing a few lines to tell you what your Heart and Nerve Pills have done for me. I had a long standing case of nervous prostration sleeplessness, palpitation of the heart and dizzy spells. I bought a box of the pills and they did me so much good I continued their use until I had used several boxes and they restored me to health again. They are a great remedy and I recommend them to all my friends."

Milburn's Heart and Nerve Pills are 50c. per box or 3 boxes for \$1.25 at all dealers, or will be mailed direct on receipt of price by The T. Milburn Co., Limited, Toronto, Ont.

Chester Whites

Have a fine lot of young boar and sow pigs. DAM Bessie, sired by Ohio Chief. SIRE Longfellow, a well-known prizewinner. On both sire and dam side these pigs stand for QUALITY and PREPOTENCY. Price on application.

Glen Athol Fruit Ranch
DAVID SMITH, Mgr.,
St. Catharines, Ontario.

Duroc - Jersey Swine.

Largest herd in Canada. 100 pigs ready to ship. Pairs and trios not akin; also a few sows ready to breed. Bell phone at the house.

MAC CAMPBELL & SONS, NORTHWOOD, ONT.

Hillcrest Tamworths

I ship to all parts of Canada and United States. Stock Boars, Bred Sows, and Exhibition Stock. Bell phone.

Herbert German, St. George, Ont.

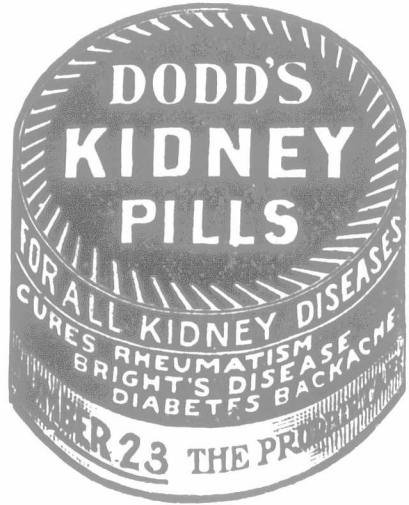
SUNNYSIDE CHESTER WHITE HOGS—I am now offering some very choice young things of both sexes, of breeding age. A few Shropshire sheep of both sexes. Also Red Cap cockerels and pullets. W. E. WRIGHT, Gleanworth P.O., Ont.

Joe Cannon, at a Gridiron Club dinner, said of a famous millionaire:

"He owes his success to his resourcefulness. He turns every disaster into victory. Once, he told me a cow got into his garden and tramped down his geraniums."

"Oh, what a shame!" said I. "And what did you do?"

"I got a pail and milked her," he replied."



**QUESTIONS AND ANSWERS.
Miscellaneous.**

PURCHASE OF FARM.

We bought a farm last spring (1910), paying cash for same. The owner worked the place and took all the crop, including the orchard. Please advise in your next issue if he was entitled to the apples? W. J. S.

Ans.—The facts with regard to the bargain are not stated sufficiently for us to venture an opinion.

ABOUT WATERMELONS.

1. How long should watermelon vines be allowed to grow?
2. Should all the blossoms be left on, or is it better to pinch some off?
3. How long will it be after blossoming until the melons are ripe? W. W.

Ans.—1. Watermelon vines should not be pinched off as those of muskmelons or cucumbers. If a vine is exceedingly long and slender, it might be pinched off to induce branching.

2. It would be better to thin the fruit on the vines soon after it is set. It is safer to thin the young fruit than to nip off the blossoms, because very often many of the blossoms will not produce fruit, and it might be that only these were left which would mean the loss of the vine as far as fruit is concerned.

3. This depends on the variety, whether early or late, and on the season and kind of soil on which the melons are grown. Planted after danger of frost is over, the fruit should mature in the late summer or early fall.

FALL PASTURE.

I have six acres fallow, clean, rich ground. I would like to sow the best thing for fall pasture for milk cows. What would you advise? A. P.

Ans.—It is now too late to sow Prof. Zavitz's annual pasture mixture of 51 lbs. oats, 30 lbs. of Early Amber sugarcane, and 7 lbs. of Red clover, and, as the cows are producing milk, rape would be unsatisfactory, because it would taint the milk. Oats or rye, sown at about two bushels or more per acre, should come on well for pasture, provided the season is favorable. Sorghum, although a comparatively new crop, should give fair results if sown right away. It does better in dry, warm weather. It should not be pastured until the plants become established. If sown with the drill, about three pecks per acre is required, and a light harrowing when the blades appear, and again when the plants are from five to six inches high, aids growth. Care should be exercised when stock are first placed on it, as otherwise there may be danger of bloating on rich, moist soil, such as a fallow. It should produce considerable fall feed.

BAD COUGH.

I have a horse six years old, weighs 1,400 lbs., which has a bad cough that is worse in the morning, but shows very little when working. When listening to his breathing, there is a harsh sound as if there were some obstruction in the throat. Sometimes the breathing is followed by a short jerking motion. He does not run anything from the nose. He is in good condition, and a good feeder; is fed good hay and rolled oats, with one pailful of water three times a day, before each feed. What is wrong with the horse, and what will cure him? S. D. J.

Ans.—The symptoms given indicate a chronic cough, which is developing into heaves. Heaves, when established, cannot be cured, but the cough, if taken in time, can be alleviated. Give a ball every morning composed of 1½ drams of powdered opium; 2 drams solid extract of belladonna; 1 dram of camphor, and 20 grains of digitalis; roll in tissue paper and administer, or dissolve in warm water and give as a drench. It would also be well to dampen all his feed with lime water, and avoid driving soon after a heavy meal. Continue watering before feeding, and feed only on the best of hay and oats, free from dirt or moldiness.

THE BETTER HALF.

Lawyer—"Am I to understand that your wife left your bed and board?" Uncle Ephraim—"Not 'xactly, boss. She dun tuk mah bed an' 'ho'd along wif her."

**Rupture Cured
Without Operation**

No Hospital or Doctors' Bills; No loss of Time from Work, and Not a Single Penny to Pay if You Don't Get Better.

No longer any need to drag through life in the clutches of rupture.

No operation, no big expense to stand in your way. And not a single cent's worth of risk. Think of that!—you who have spent dollar after dollar without finding a thing that has done any good. You who have been afraid that some day you'd have to risk the dangers of operation—you who dread the surgeon's knife because you know it results in permanent weakness or death about as often as in recovery.

In the last 24 years more ruptured people have been cured without operation than by all the operations ever performed.

Cured without being in bed a single day—without losing a single hour from work.

Cured by the wonder-working Cluthe Truss (Cluthe Automatic Massager)—something so remarkably beneficial that in 99 cases out of every 100 relief is immediate, and in most cases cure begins at once. For this is far MORE than a truss—far more than merely a device for holding the rupture in place.

Try it at Our Risk.

We have so much faith in the Cluthe Truss that we are willing to let you prove, by trying it at our risk, just what it will do for you.

If it fails to hold your rupture securely in place, when working and at all other times—if it doesn't do you a world of good—then it won't cost you a single cent. All guaranteed in writing.

Cure Takes Place While You Work.

A Cluthe Truss—right from the first day—will put an end to all danger of your rupture coming out.

And, in addition—while you go on working, remember—it soon overcomes the weakness which is the real cause of rupture—

Does it by massaging the weak ruptured parts—All entirely automatically.

And this stimulating massage strengthens just as exercise strengthens a weak arm—in most cases soon makes the ruptured parts so strong that no sign of the rupture is left.

That is how the Cluthe Truss has cured some of the worst cases of rupture on record—cured many of them after everything else, including operation, had proven utterly useless.

Free Book Tells All About It.

So that you can judge for yourself, we want to send you—free—our cloth-bound book of advice.

It sums up all we have learned in 40 years of day-after-day experience. It deals with rupture in all its forms and stages; explains the dangers of operations; puts you on guard against throwing money away.

And it tells all about the Cluthe Truss—how little it costs—how it is water-proof—how it has no springs, band, belt or elastic around your waist, no leg-straps, nothing to pinch, chafe, squeeze or bind. And how you can try a Cluthe Truss entirely at OUR risk.

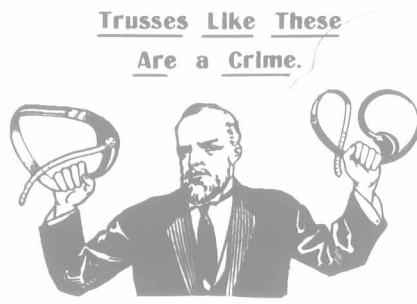
Write for the book to-day—don't put it off—this book may be the means of adding many years to your life and of restoring you to full strength and usefulness.

Simply say in a letter or postal: "Send me your book." In writing us, please give our box number.

Box 109 — CLUTHE INSTITUTE

125 East 23rd St. New York City

The minute it takes to write for this book may free you from suffering for the rest of your life.



Trusses Like These Are a Crime.



Monkland Yorkshires

7 months or age. An exceptionally choice lot, full of type and quality; also a limited number of young boars.

I am making a special offering of 50 young bred sows. They will average 200 pounds in weight, and are from 6 to 10 months of age. Full of type and quality; also a limited number of young boars.

MATTHEW WILSON, FERGUS, ONTARIO

Newcastle Tamworths and Shorthorns

For sale: Choice young sows bred and ready to breed. Boars ready for service; nice things, 2 to 4 months, by imp. boar. Dam by Colwill's Choice. Canada champion boar, 1901-2-3-5. Two splendid young Shorthorn bulls and six heifers—bred. Prices right. Bell phone.

A. A. COLWILL, NEWCASTLE, ONTARIO

Willowdale Berkshires.

For sale: Nice lot of 5 months' sows, one 5 months' boar. Eggs from my famous flock of R. C. R. 1 Reds, \$1 per 13. Express prepaid on 5 settings or more. Phone 52, Milton.

J. J. WILSON, Importer and Breeder, Milton, Ontario, C.P.R. and G.T.R.

MAPLE VILLA YORKSHIRES AND OXFORDS

A grand lot of boars fit for service. Some splendid sows to farrow to first-class boars. 30 ewe lambs, including 2nd pen at Winter Fair. Long-distance phone Central Beeton.

Bradford or Beeton Sta. J. A. CERSWELL, Bond Head, Ont.

ELMWOOD STOCK FARM offers Ohio Improved Chester White Pigs.

Largest strain. Oldest established registered herd in Canada. Choice lot, 6 to 8 weeks old. Pairs furnished not akin. Express prepaid. Pedigrees and safe delivery guaranteed. E. D. George & Sons, Putnam, Ont.

Morrison Tamworths—Bred from the best blood in England; both sexes for sale, from two to ten months old; young sows, dandies, in farrow to first-class boars.

CHAS. CURRIE, MORRISTON, ONTARIO
Schaw, C. P. R. Guelph, G. T. R.

PINE GROVE BERKSHIRES

Sold out of young boars. Have a few young sows three and four months old. Price right for quick sale. Milton, C. P. R. Georgetown, G. T. R. W. W. Brownridge, Ashgrove, Ont.

Maple Grove Yorkshires

ARE EQUAL TO THE BEST. Present offering: Twenty-five sows bred to farrow from Aug. to Oct. All first-class, bred to No. 1 quality boars. All big, roomy, growthy stock, and ranging from six months to two years old. Eight young boars fit for use; choice long fellows of excellent breeding, and younger pigs of various ages. Pairs not related. Our prices will suit the average farmer, but are consistent with the best quality. Stock shipped C. O. D. and on approval. Correspondence and personal inspection invited. Long-distance phone via St. Thomas.

H. S. McDIARMID, FINGAL, ONTARIO.
Shedden Station, P. M. and M. C. R.

LINCOLN LONG-WOOL SHEEP

And Shorthorn Cattle.

The Riby Grove Flock and Herd, owned by

MR. HENRY DUDDING,

Is the source to which practically all the leading export buyers have resorted from time to time to obtain stud sires and dams, and rams and ewes of unrivalled merit and quality. The record of its showyard success is unequalled, and so are its sale averages. Selections of Sheep and Cattle always for sale.

Apply: THE OWNER, RIBY GROVE, STALLINGBOROUGH, GRIMSBY, ENGLAND

Alloway Lodge Stock Farm

COLLIES—That win at the shows and make excellent workers. Railway station, London.

SOUTH-DOWNS—Do you want a fine-fitted Southdown to win out with at the shows, and to put some good new blood into your flock? I am now taking orders, and you will advantage in ordering early. I guarantee to please you, and at reasonable prices.

ANGUS—The first offering since founding the herd. Bulls and heifers for sale of showyard quality, and the choicest breeding.

ROBT. McEWEN, Byron, Ontario.

Shropshires and Cotswolds

I am now offering for sale 25 shearing Shropshire rams and 15 shearing ewes, nearly all from imported ewes and ram. Also the best lot of lambs I ever raised. Am fitting some of all ages for showing. Prices very reasonable.

JOHN MILLER, Brougham, Ont.
Claremont Stn., C. P. R.

CATTLE and SHEEP LABELS

Metal ear labels with owner's name, address and any numbers required. They are inexpensive, simple and practical. The greatest thing for stock. Do not neglect to send for free circular and sample. Send your name and address to-day.

F. G. JAMES, Bowmanville, Ont.

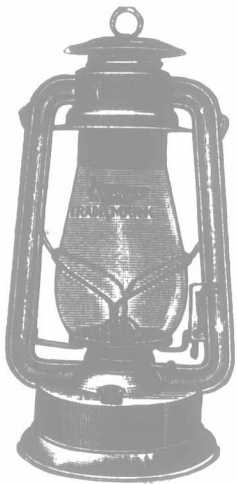
SHROPSHIRE BARGAINS AT FAIRVIEW

Choice shearing rams sired by grand champions, and out of the best of dams. We have in the lot flock headers and showing propositions. We guarantee them to be as described. See representatives at Toronto's Canadian National.

J. & D. J. CAMPBELL, FAIRVIEW FARM, WOODVILLE, ONTARIO

"BANNER"
Cold Blast
LANTERN

Patent Lift Lock.
No Jammed Fingers.

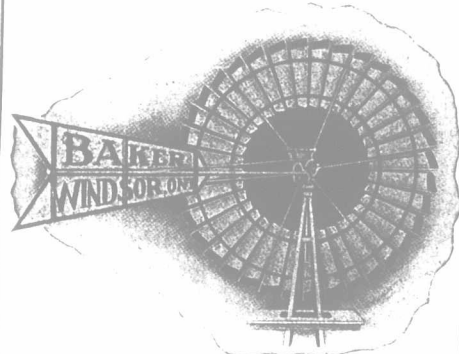


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Costs no more than inferior lanterns.

Ontario Lantern & Lamp Co.,
LIMITED,
Hamilton, Ontario.

"BAKER" Wind Engines

The "BAKER" Wind Engine is built for heavy duty. Neat and compact in design. Do perfect work because they are built on principles that are absolutely correct, and the easiest-running mill made.



The wheel is built on a hub revolved on a long stationary steel spindle. As a result there is less friction.

It has a large number of small sails without rivets. The small sails develop the full power of the wind.

The engine is so constructed that the gears cannot wear out of mesh.

Has ball-bearing turntable, and self-regulating device.

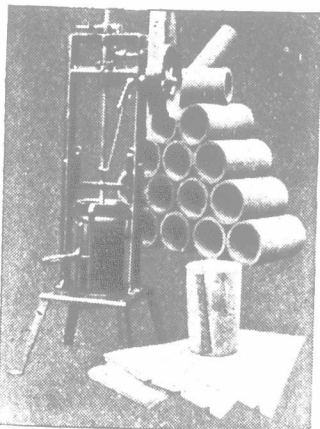
All working parts are covered with a cast shield, thus protecting same from ice and sleet.

We make a full line of steel towers, galvanized steel tanks, pumps, etc.

All goods fully guaranteed. Write for catalogue No. 58.

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Windsor, Ontario.

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Cost
\$4.00
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Hand
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Farmer's Cement Tile Machine Co.
WALKERVILLE, ONT.

**Arkona Basket Factory
for Berry Boxes**

Hold 6 quarts. Baskets, Crates, etc. Write for quotations. Special prices to vegetable and fruit growers' associations in car lots. Prices on application.

Geo. M. Everest, Prop., Arkona, Ont.

TRADE TOPICS.

REAPING-HOOK TO BINDER.
By Edwin L. Barker, of International Harvester Co. Service Bureau.

A great day was Saturday, July 8th, at De Kalb, Ill., where was held a harvest carnival, by which we of the present are given a bitter-sweet taste of the past and are set to counting our many blessings. It was fitting that such a carnival should have been held at De Kalb, for it was here that C. W. Marsh wrought the Marsh harvester, the link between the self-rake reaper and the modern binder. Mr. Marsh was present, hale and hearty, at the age of seventy-seven. The manufacture of the Marsh harvester caught the interest of William Deering, whose capital and energy later were to assist in the evolution of the Deering machines and a perfect binder twine.

The idea of the carnival belongs to Henry O. Whitmore and T. L. Oakland, two pioneer Illinois farmers who live midway between De Kalb and Sycamore.

The event smacked somewhat of an old settlers' meeting. All visitors under sixty were regarded as children. What does a man of fifty know of the world's progress in the methods of harvesting? Nothing. He is a child—an infant. When one of these youngsters would try his hand at swinging a cradle, the crowd would yell: "Look out! Don't cut your leg off!" And occasionally the warning came just in time.

The oldest, and one of the best cradlers has just slipped over into his ninety-second year. If some of his friends had not stopped him, this cradle expert—"Uncle Billy" Allen, they called him—would have cradled the entire acre of wheat that he might put on record every one of his ninety-odd years as a year of youth, and, also, that though long idle, he had not lost the art of cradling.

Believe me or not, cradling is an art—soon to be numbered among the lost arts. We are not sorry to lose this art, since we have a better way—even "Uncle Billy" said so—but it is good to resurrect it now and then, if for no other reason than to remind us of the words that were truer then than now, "Man shall earn his bread in the sweat of his face."

Many varieties of cradles were brought from their hiding-places to be used at the Whitmore and Oakland farms, and their names came with them—"Morgan," "Grapevine," and "Turkeywing."

First came the reaping hook. After watching it cut a few sheaves of wheat, one ceased to wonder that the cradle was once hailed as a great invention. One of McCormick's first reapers, which required a man to walk alongside of it and rake off the grain, could not be obtained. Had one of these reapers been there, it is doubtful if anyone present would have understood the trick of raking. The next reaper, with a seat for the raker, also was absent.

The first machine to enter the field was an old Champion self-rake reaper. Then followed the Marsh harvester, which carried the grain up to a table, where two men stood and did the binding with wisps of straw caught from the bundles. These men were targets for many comments. Their hands did not work as swiftly as in days ago, and frequently the driver had to pull the horses to a halt to give the binders a chance to catch up.

Finally a modern McCormick binder took up the work. As it quickly cut, bound, and tossed the sheaves to the shockers, a cheer went up from the crowd, and Old Glory, hanging near, caught the spirit and the sudden stiff breeze, and waved in triumph.

The flail was an interesting implement, and what, perhaps, was more interesting, was the different ways different farmers used it. Many who tried and failed, complained that something was wrong with the flail. It was too long, or too short, or this, or that, or the other. There was nothing the matter with the men. Oh, no. The singer is never off key or out of time. No, no—it's always the piano or accompanist. To understand just how far progress has travelled on the farm, see a flail and a threshing machine standing side by side.

Farmers from different parts of the State had sent in a lot of old, odd relics of the agricultural past. The collection included rakes made of wood, a pitchfork so small that it might have been a

giant's table-fork, candle molds, lanterns, a footwarmer such as our forebears carried to church on cold days, and an ancient spinning-wheel, with which an old lady spun wool.

Oh, but wait. I had almost forgotten the old dinner horn. Small as it is, it emphasized the fact that each generation is an adept in the arts and practices peculiar to that generation. No more, no less. Not one of the youngish, husky, big-lunged men could get more than a joke of a sound out of the dinner horn. It was not until an old man raised his head and placed the horn to his lips that a great blast went echoing across the distant fields. And then he laughed: "Why, it's easy. The women blew these horns when I was young." Then, with a note of reminiscence in his voice: "We used to think it was the sweetest music we ever heard."

All the old things we like to remember as belonging to the harvest-time were there—all save the little brown jug, and the "Swizzle." Don't you know what "Swizzle" is? Then you're not as old as I thought you were. Why, man, "Swizzle" was the stuff that was in the jug. Now, if you don't know what "Swizzle" is, go ask your grandfather.

It was suggested—and we pass the suggestion along—that other farmers in other sections pull off similar carnivals. They recall pleasant memories to the older folks, and whet the appreciation of the younger.

An opportunity is offered this month to get Wilson's Scales at wholesale prices. Write for price list to C. Wilson & Son, 79 Esplanade street east, Toronto, Canada.

GOSSIP.

Now that pigs are getting their noses up in the world again, it is a good time to read about those fine Chester Whites that are being offered from the Glen Athol Fruit Ranch, St. Catharines, by David Smith.

The enterprise of Percheron breeders in developing the Canadian field is instanced by the action of the Percheron Society of America in granting special prizes for stallions and mares of the breed at no less than thirteen Canadian Exhibitions, of which the majority are in the Western Provinces.

SELLING RIBBONS.

A young man who has rented some 20 acres of good land, wrote Wallace's Farmer whether he should stick to it or try a job in town. Mr. Wallace intimates in reply that if the young man has not the taste or ability for farming, "he might get into a department store, sell ribbons and laces to young ladies, and learn to smile and look sweet and dress well; but the chances are that he will only make a living and not much more. Young men have come to town with only their bare hands, and have succeeded beyond their expectations; but the majority of them, like the majority of people reared in the city, live from hand to mouth, and thousands of them regret that they did not stay on the farm."

HOW TO LOOK TALL.

Here are hints for the woman who would be a little taller:

Never under any circumstances wear a belt of contrasting color. You may think it gives a smart color note, but you are wrong.

Let all your lines run up and down. Do not wear a yoke of the square variety.

Have your gown all of one material, preferably a light tone.

Wear long gloves and carry a tall umbrella.

Hold your chin up to lengthen your throat line.

Carry your head straight, never tilted to one side. The tilted head is for the tall woman who wants to look short.

"Last night my wife and myself had the most foolish squabble of our married life."

"What was the subject of your dispute?"

"How we would invest our money if we had any."



You Can "Rough it" with a
Tobin Simplex

Trailing a piece of heavy bush, climbing over, crawling under, wading through obstructions that lie always in the path of those who follow the sport of small game hunting—this sort of work calls for a gun that will "stand the racket." Without hesitation, we state that no gun can be procured that is better suited for just such work, than the



It is a gun that will not fall you. Why? Because every piece of metal, every piece of wood used in its making, has been selected with scrupulous care, and it is positively flawless. Every part is made well—made accurately—we know how. You buy with it a guarantee that is a positive insurance that you will be thoroughly satisfied—if not, we bind ourselves to return to you the full amount you paid for the gun. Priced from \$20 to \$210.

Send for our new catalogue. It will interest all sportsmen.

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No neck weight.—Perfectly rigid frame.—RUNS EASILY.—
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I was helpless and bed-ridden for years from a double rupture. No truss could hold. Doctors said I would die if not operated on. I fooled them all and cured myself by a simple discovery. I will send the cure free by mail if you write for it.
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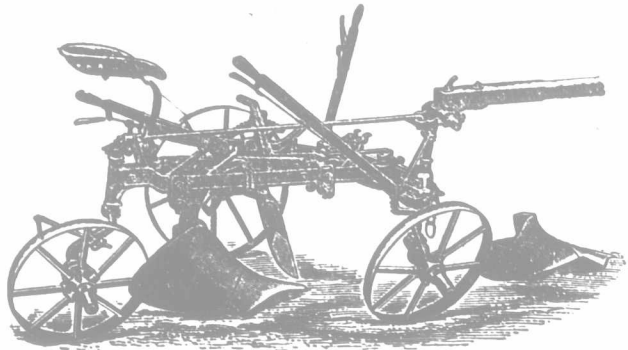
COCKSHUTT

"COCKSHUTT" Plows are Made in a Plow Factory to Suit YOUR Needs

For thirty-five years we have made a specialty of manufacturing plows of every description and including designs to meet the requirements of farm work no matter what the soil conditions.

The 120 different styles of Cockshutt plows will suit every soil condition.

Cockshutt plows are manufactured in a plow factory, not as a side line to other farm implements. The specializing, combined with high-grade materials and expert workmanship has given to "Cockshutt" plows a name that is known the world over for quality and reliability.

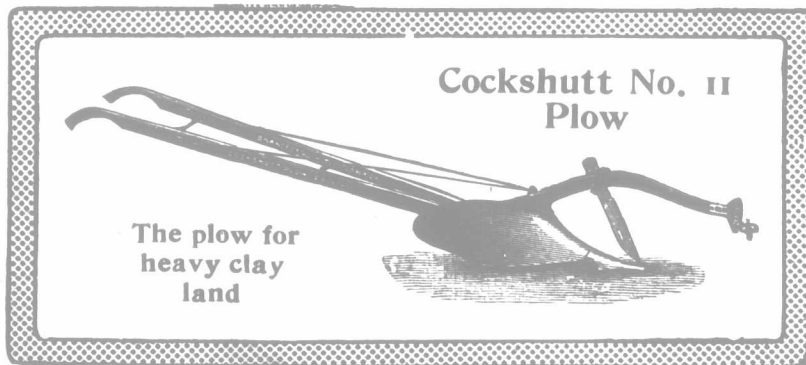


Cockshutt Foot Lift Sulky

As easy on the horses as an ordinary walking plow, this new Footlift Sulky has the added advantage of the special footlift attachment which enables any boy who can handle a team of horses to plow as well as the most experienced plowman can with a walking plow.

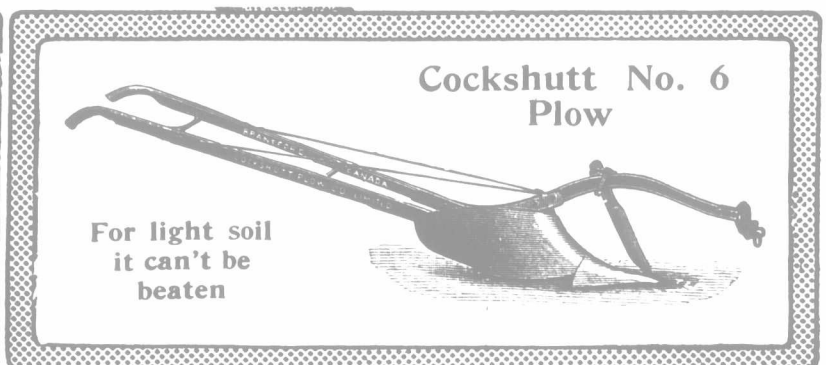
You can quickly change the bottoms from wide to narrow as desired.

The hand levers are set to required width and depth on entering the field, after that any raising or lowering that is necessary to avoid obstructions is done altogether by means of footlift attachment.



Cockshutt No. 11 Plow

The plow for heavy clay land



Cockshutt No. 6 Plow

For light soil it can't be beaten

Heavy, sticky land requires a plow that is built to stand the extra heavy strain, and at the same time be as easy as possible on the team and the plowman. To meet just such requirements we have designed our No. 11. The mould board is of special crucible steel, the share is of the best gray iron chilled very hard. The long handles give ease of control and aid greatly in keeping straight furrows, no matter how hard and sticky the soil. Equipped with rolling coulter if desired.

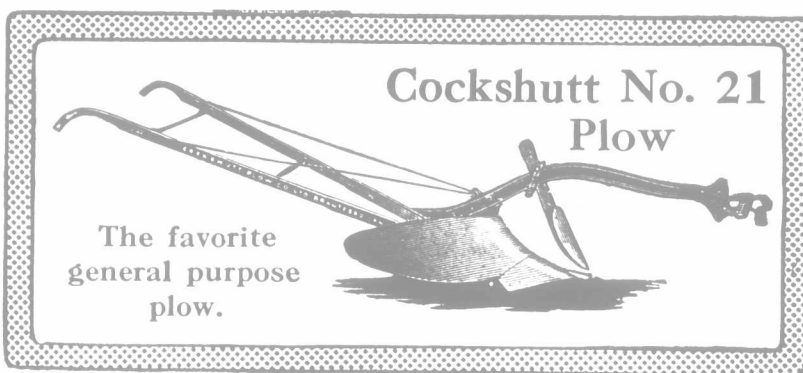
Everyone knows that you can turn a better furrow in light soil with a light plow than with a heavy one, and there is no excuse for asking your horses to pull any extra weight. Although built as a light plow, no feature of strength has been omitted in No. 6. There are the long handles for ease of control, the same hard chilled mould board, the extra tough share, and the same care in making and testing that have made the name "Cockshutt" the standard name in ploughs.

Cockshutt Plows are Designed for Long Wear and Good Work with Least Strain on Horse and Driver

Unquestionably the most popular walking plow in Canada for general use. The extra leverage afforded by the long handles makes the plowman's work very easy.

The mould board and share are made of the same high quality materials as in our No. 11, and the workmanship throughout is the very finest.

This plow turns an excellent furrow from 10 to 12 inches wide and from 4 to 8 inches deep. Shipped with knife coulter, or can also furnish jointer and wheel. Let us send you further particulars of this plough and refer you to our dealer, because we know that this plow has merits which will appeal to you at a glance.



Cockshutt No. 21 Plow

The favorite general purpose plow.

Our catalogue is a safe guide from which any farmer can choose his implements and be sure after he has bought that he has the RIGHT implement for his work. There are more than 120 different plows, from the big 12 furrow engine gang to the light garden plow. Then there are cultivators, drag harrows,

drills, disc harrows, pulverizers, corn planters, harrow carts, weeders, scrapers, in fact every implement that has any bearing on the proper tillage of the soil.

Send your name and address to-day for a copy. You will then be sure that you will have an implement as perfect as good materials and skill can make it.

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