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AND FARM JOURNAL. With which is incorporated **THE CANADIAN FARMER & GRANGE RECORD**

Vol. VIII., No. 12.
Vol. IV., No. 12—New Series.

Toronto, December, 1885.

\$1.00 per annum, in advance.

**CANADA PERMANENT
Loan & Savings Co.,**
INCORPORATED A.D., 1855.

SUBSCRIBED CAPITAL	\$3,000,000
PAID-UP CAPITAL	2,200,000
RESERVE FUND	100,000
TOTAL ASSETS	8,539,476

Office—Company's Buildings, Toronto Street, Toronto.
The Company has now on hand a large amount of English money which it is prepared to lend on first class securities at low rates of interest.
Apply to J. HERBERT MASON, Mang. Director.

THOMAS IRVING, Logan's Farm, Montreal, breeder of Ayrshire Cattle, Clydesdale Horses, Yorkshire and Berkshire Pigs, and Leicester Sheep.

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Manufacture Superphosphates, Artificial Manures and Special Fertilizers, for Field and Garden purposes. For prices and circulars address, R. J. BRODIE, Manager, Smith's Falls, Ont.

FIRST-CLASS DELAWARE FARM for sale 14 miles from town of Farmington, on Delaware R. R. 90 acres high state of cultivation, 75 bushels corn, 30 bushels of wheat per acre, 25 acres in timothy and clover, 63 acres in grain, 700 peach trees, apples, pears, cherries and grapes, two story dwelling, modern finish out buildings, three tenant houses, healthy location, school and church convenient. Will be sold at a bargain, less than cost of buildings, Address AMOS COLE, Harrington, Delaware.

HOME STUDY. Thorough and practical instruction given by mail in Book-keeping, Business Forms, Arithmetic, Penmanship, Shorthand, etc. Low Rates. Distance no objection. Circulars free. Address, BRYANT & STRATTON'S COLLEGE, Buffalo, N.Y.

W. S. HAWKSHAW, Glenworth, P.O., breeder of Short-horn Cattle and full bred Shropshire Sheep.

ALEXANDER BURNS, Maple Lodge Farm, Rockwood, Ont., breeder of Short-horn Cattle. Young stock for sale.

FOR SALE. Twenty Colonies of Italian and Hybrid Bees, mostly pure Italians, in Jones hives, for which I will take \$7.00 a colony, delivered on board Cars at Meaford, WELLINGTON SANDERS, Meaford, Ont.



A HAPPY FAMILY.



—THE—
IMPROVED
**Model Washer
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ONLY WEIGHS 6 LBS.
Can be carried in a
small valise.

Pat. Aug. 2, 1884.
C. W. Dennis, Toronto.

SATISFACTION GUARANTEED OR
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\$1,000 REWARD FOR ITS SUPERIOR
Washing made light
and easy. The clothes have that pure white-
ness which no other mode of washing can
produce. No rubbing required—no friction to
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the washing as well as an older person. To
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reduced to \$2.00, and if not found satisfactory,
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See what *The Baptist* says: "From personal
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in its use we commend it as a simple, sensible,
scientific and successful machine, which suc-
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and enduring, and is cheap. From trial in the
household we can testify to its excellence."

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Mr. C. W. Dennis offers to the public has many
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Creswell Bros.,
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Under-shirts, Draw-
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FAMILY KNITTING
MACHINE.
Our book of Illus-
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all. It is so simple,
six novices can be
made in one day, giv-
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each. Blind girls can
knit and finish one
doz. pairs of socks per
day, and \$2.43 and \$4
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FAMILY CANADIAN
KNITTING MACHINE.



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Are generally induced
by Indigestion, Foul
Stomach, Costiveness,
Deficient Circulation,
or some Derangement
of the Liver and Digestive System.

Sufferers will find relief by the use of

Ayer's Pills

to stimulate the stomach and produce a regu-
lar daily movement of the bowels. By their
action on these organs, AYER'S PILLS divert
the blood from the brain, and relieve and
cure all forms of Congestive and Nervous
Headache, Bilious Headache, and Sick
Headache; and by keeping the bowels free,
and preserving the system in a healthful
condition, they insure immunity from future
attacks. Try

Ayer's Pills.

PREPARED BY

Dr. J. C. Ayer & Co., Lowell, Mass

Sold by all Druggists.

"Highly Commended at the Toronto Exhibition,
1887."



Is quickly and easily
attached to the head of
Cattle, Hog, etc., and re-
tained there by Steel
Springs; a smart blow given
it instantaneously and pain-
lessly deprives the animal
of sensibility.

The "Stunner" is the
only instrument that can
be attached to the head of
Stock for Slaughtering pur-
poses. It enables the
FARMER and PIG-KEEPER
to kill his own Cattle and
Hogs humanely, safely,
speedily and quickly.

Humanitarians should use and advocate the use of
the "Stunner."

A sample sent, Carriage paid, for 75 cents
By J. B. STANLEY, Doncaster, Ont.—Patented in
U. S. A. and Canada. Agents wanted in every
district.

DR. LEW'S WORM SYRUP will
remove all kinds of Worms from chil-
dren or adults.

**HAYWARD'S
YELLOW OIL
CURES RHEUMATISM**

**1/2 FREEMAN'S
WORM POWDERS.**

Are pleasant to take. Contain their own
Purgative. Is a safe, sure, and effectual
destroyer of worms in Children or Adults.

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Baking Powder.

ABSOLUTELY PURE.

Ladies who are particular about their baking
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ASK YOUR GROCER FOR IT!

A CRYING EVIL.—Children are
often treated and ill when worms are
the cause. Dr. Lewis' Worm Syrup
safely expels all Worms.

WHAT IS CATARRH?

[From the Toronto (Canada) "Mail"]

Catarrh is a mucopurulent discharge caused
by the presence and development of the vege-
table parasite amoeba in the internal lining
membrane of the nose. This parasite is only
developed under favorable circumstances, and
these are: Morbid state of the blood, as the
blighted corpuscle of tubercle, the germ poison
of syphilis, mercury, toxemia, from the reten-
tion of the effete matter of the skin, sup-
pressed perspiration, badly ventilated sleeping
apartments, and other poisons that are germi-
nated in the blood. These poisons keep the
internal lining membrane of the nose in a
constant state of irritation, ever ready for the
deposit of the seeds of these germs, which
spread up the nostrils and down the fauces, or
back of the throat, causing ulceration of the
throat; up the Eustachian tubes, causing
deafness; burrowing in the vocal cords,
causing hoarseness; usurping the proper
structure of the bronchial tubes, ending in
pulmonary consumption and death.

A New Treatment
FOR THE
**RAPID AND
PERMANENT
CURE OF**

CATARRH

A. H. DIXON & SON
TORONTO, CANADA.
No 305 KING ST.
WEST.

205 King Street West, Toronto, and get full particulars and treatise free by enclosing stamp.

What the Rev. E. B. Stevenson, B. A., a Clergyman of the London Conference of the Methodist
Church of Canada, has to say in regard to A. H. Dixon & Son's
New Treatment for Catarrh.

Mrs. A. H. Dixon & Son:
Dear Sirs,—Yours of the 17th inst. to hand. It seems almost too good to be true that I am cured of
Catarrh, but I know that I am. I have had no return of the disease and never felt better in my life.
I have tried so many things for catarrh, suffered so much and for so many years, that it is hard for me to
realize that I am really better.
I consider that mine was a very bad case. It was aggravated and chronic, involving the throat as
well as the nasal passages, and I thought I would require the three treatments, but feel fully cured by the
two—ent me, and I am thankful that I was ever induced to send to you.
You are at liberty to use this letter, stating that I have been cured at two treatments, and I shall
gladly recommend your remedy to some of my friends who are suffering.
Yours, with many thanks,
REV. E. B. STEVENSON.

Rural Canadian and Farm Journal,

WITH WHICH IS INCORPORATED

THE CANADIAN FARMER AND GRANGE RECORD.

Vol. VIII., No. 12.
Vol. IV., No. 12—New Series.

Toronto, December, 1885.

\$1.00 per annum in advance.

RURAL NOTES.

ONE of the frequent causes of abortion in cows, mares and ewes is the use of ice-cold water.

AN Ontario farmer, John Rutherford, of Roseville, swept the board with his exhibit of sheep at the Chicago Fat Stock Show. With twenty-five heads he took twenty-four prizes, the cash value of which was \$500.

We shall have the Fat Stock Show in a few days. This show is now becoming an institution of the Province, and it is fortunate that we have a sufficient number of enterprising breeders and feeders to make it thoroughly successful.

To milk a cow before the calf comes is to disturb the natural habit, and bad consequences may follow. When it is necessary to relieve the cow only a very little should be drawn, and the secretion of milk should be discouraged by the use of dry food.

THE better way to salt stock is to buy a few lumps of rock salt, put them under cover and allow stock to them as they wish. A dollar's worth of rock placed under cover will last as long as a barrel of salt given in the usual way, with the advantage of the stock getting salt as they need it.

SOME potato growers who have been investigating the subject of rot for the purpose of finding a remedy, incline to the belief that gathering and burning or burying deeply in the ground all the diseased vines and tubers will have a tendency to check its ravages, by preventing the production of spores, which takes place when the tops and diseased potatoes are left to decay upon the ground.

HEMLOCK is less expensive than pine lumber, and for grain barns it has the decided advantage in being less liable to be eaten by rats and mice. The splinters in hemlock boards are very annoying to vermin in making their way through, while a pine board is scarcely any obstacle to their progress. Hemlock plank will last tolerably well as flooring for horse stables, and when it decays the expense is not large for procuring more.

CHEESE and butter makers were in a disconsolate mood owing to the low prices for their products which prevailed during the greater part of the season; but a marked improvement took place toward the close, and their hopes have revived again. One thing they can depend on, and that is that the demand for cheese and butter will continue for a few years yet to come; also that the best article will always bring the best price.

MANY Western farmers find the expense of keeping up fences entirely too great in these times, and are substituting hedges in their place; but the hedge business may be easily overdone. It requires a great deal of labour in pruning, and with its roots on either side occupies as much land as a crooked rail fence. It is also a difficult fence to get rid of, and should only be planted where it is certain that a permanent fence will be needed.

MANY farmers are prone to neglect making ditches where they are needed, and some of them fail to give them proper attention. The open ditches become clogged up and filled with rubbish every little while, and should be carefully cleaned out at least twice a year—in the spring and again in the fall. See that the matter is attended to this fall. It will not pay to neglect this, and thus allow the drains to fill up and force the water over the land to destroy crops, etc. "A stitch in time" remember.

THE black-faced sheep of the Highlands of Scotland have been tried on the prairies of Illinois, and have turned out a complete failure there. Nothing else could have been expected as a result of such experiment, and we are surprised that any man in his wits should have ventured to make it. In Haliburton, Muskoka, Parry Sound or Nipissing, in our own Province, this breed might be tried with some confidence of success, for the district of country is not unlike its proper habitat. And we may add that if this experiment were successfully made it would be a fortunate one for the farmers; for the mutton of the Highland sheep is the sweetest that reaches the London markets, and it also fetches the highest price.

THE Board of Agriculture for the State of Illinois is authority for the statement that a large number of so-called creameries in that country "use the product of the beef and the hog in the manufacture of a product which they sell upon the market as and for genuine butter." The National Butter, Cheese and Egg Association are calling for the proofs of this bold allegation, and the question is not settled yet; but report says that some of the principal manufacturers of oleo-butters in Chicago are in a position to produce the proofs. In the interest of consumers it is of great importance that the Illinois Board should meet the challenge promptly, as otherwise the creameries of the Western States must rest under a stigma.

THE manufacture of sugar from the sorghum cane has received a new impetus as the result of recent experiments in the chemical division of the United States Department of Agriculture. One of the new processes consists in cutting the canes into chips and then extracting the sugar by means of warm water. Another is known as the process of carbonation in clarifying the juice, which is found to yield results in every respect superior to those furnished by the old methods, and also saves the time and labour of scumming. An idea of the importance of the first of these discoveries may be formed when it is stated that by the application of it the sugar produced in the country can be increased fully thirty per cent. without increasing the area under cultivation.

IN the performance of the duties of his office, in its various divisions, the United States Commissioner of Agriculture has now a working force of nearly four hundred persons—specialists, clerks, labourers and other employes. There are altogether eight divisions, each one of which is directed by a responsible head, namely: (1) the seed division, (2) the entomological division, (3) the horticultural, pomological and

propagating division, (4) the botanical division, (5) the microscopical division, (6) the statistical division, (7) the forestry division, and (8) the veterinary division. In the statistical division sixty-four clerks are employed under the statistician, and over 7,000 persons act as regular correspondents throughout the Union, being an average of four for each county.

IT is possible that in the earnest desire to aid the Canadian Pacific Railway in procuring traffic, our Government may make a serious mistake, in so far as the interests of farmers are concerned. A few weeks ago it appears that an arrangement was entered into for sending cattle from the Dakota and Montana ranches to the Chicago markets by way of the Canadian Pacific and the St. Paul and Manitoba lines—the cattle being driven from the ranches northward to one of the C. P. R. stations. Now it is well known that there are some herds in the Western States infected with pleuro-pneumonia, and any day it may be carried into our North-West. Let this occur, and Canada will be scheduled in Great Britain as well as the United States. The risk is obvious, and we trust that the Department of Agriculture at Ottawa will not fail to consider it.

THE cattle growers of the United States met in convention in Chicago two weeks ago, and among the subjects they discussed was the restriction placed on the American cattle trade by foreign countries. It was shown that, while Canada's exports to Great Britain have been increasing, those of the United States have been decreasing; and the reason is apparent. American cattle have to be slaughtered at the point of debarkation in Great Britain, while Canadian cattle can be sent to any interior market of the country—rigid inspection of cargoes arriving from both countries showing that in the case of American cattle disease was found to exist, and in the case of Canadian cattle there was an entire absence of disease. A clean bill of health is what our neighbours want to establish, and cattle-men are organizing to accomplish that object. They thoroughly appreciate the maxim that "prevention is better than cure," and heretofore Canada has acted on that maxim.

ACORNS, chestnuts, oilnuts and walnuts should be planted where the trees from them are to grow. If the ground is covered with a grass sod, cut out a round piece, say two feet in diameter, dig the earth in the hole, and then replace the sod, grass side down. On this place three or four of the acorns or nuts, cover them with three or four inches of leaves, and on the leaves place a large flat stone, or a piece of board, to keep them from the ravages of mice or squirrels. Early next spring, when the nuts cracked by the frost have begun to sprout, remove the rock or board, and as the tree plants appear keep them free from weeds. The first summer they should be hoed and mulched, the second year thin out to two plants, and the third year only leave one. In this way you can have nuts in twelve or fifteen years after planting, perhaps earlier. I am aware that nurserymen say there is no trouble in transplanting oak or nut trees, but I don't believe that one out of ten sold by them lives.

FARM AND FIELD.

FOR THE RURAL CANADIAN.

WALKS AND TALKS AMONG THE FARMERS.—NO. XIX.

Thanksgiving Day has come and gone. The religious observance of it is not very general, especially in the country. In towns and cities, it is mainly kept as a holiday. Union services are becoming common, chiefly, I think, because only a small minority of each congregation is disposed to attend public worship on that day. It is to be lamented that there is not a more general recognition of the obligation which rests on us all to acknowledge the care and bounty of Providence, by attending at least one public service on the day specially set apart for the expression of individual and national gratitude to Almighty God for His many blessings. Of course, we can be thankful every day, and we ought to be, for there is abundant reason why we should. Praise also forms a prominent part of Sabbath worship. But ingratitude is one of the besetting sins of humanity, and a day once a year set apart for thanksgiving, if properly kept, cannot but aid in the correction of this evil tendency. I was enquiring of a prominent member of a country congregation why there was no service in his church on Thanksgiving Day. He replied that the weather had been very wet and unfavourable for doing fall work, especially getting in root crops, and it was thought, if the day was fine, people would be too busy in the fields to attend meeting. This suggests whether our Thanksgiving Day is not appointed too early for general convenience. The Americans have theirs in the end of November. Ours occurs in the beginning of the month. It was a few days later than usual this year, owing to a postponement. The first days of November are not a leisure-time with farmers. The last of the month would suit his large class of the community much better. Indeed, I do not see why the same day should not be observed throughout Canada and the United States. It would be a pleasing spectacle to behold the entire North American Continent engaged simultaneously in the discharge of this becoming duty.

I HAVE been reading over again a very useful and suggestive little book, entitled "Farm Talk," which was kindly sent me by the author, Mr. George E. Brackett, of Belfast, Maine, in the spring of 1882. I gave it a brief notice in the April number of THE RURAL CANADIAN for that year. It claims to be the only book upon farming subjects ever written in every-day-talk style. I am not sure that this claim is well founded. "The Marvels" entertaining book, "My Farm of Edgewood," contains a large proportion of colloquial matter. Anyway, Mr. Brackett's volume fully answers to its title, and is a very entertaining and instructive work. I have been so much interested in a chapter entitled, "The 'Ologies," that I think I will transcribe it. To abbreviate it would spoil it, and I am sure it will well repay perusal in full.

Jerry called into Smith's the other evening, and found him in quite a state of excitement, consequent upon reading an article in an agricultural magazine he had lent him. In fact, Smith had "got his dander up" in regard to the doctrines and language contained in said article, and was willing to own it. He was sputtering away about "humbugs," "nonsense," "'ologies," etc.

"What's the matter with the 'ologies, Smith?"

"I don't believe in 'em, and never did. What's the use of so much 'flummy-diddle?' Plain common sense is enough for any farmer's paper. I'm a practical farmer, none o' your

science about me; and your 'ologies may go to grass for all me. I've no use for 'em."

"Wait a bit. Don't get excited. Let's talk the thing over a little. Nothing like keeping cool to enable a fellow to understand the gist of the matter. Now, I believe you are as much interested in the 'ologies, as you call them, as anybody."

"No, sir, I'm dead set agin 'em."

"Let's argue the point a little."

"Wall, arger away; but just try an apple, to clear your throat."

"Thank you, I will. Fine specimens these, What variety are they?"

"Spitsenburghs; some of my own graftin."

"Sure they're Spitsenburghs?"

"Sartin. I took considerable pains to study 'bout apples, and I guess there ain't many kinds raised hereabouts but I can tell their names as quick as I put my eyes on 'em."

"I've no doubt of it; and your knowledge on the subject proves that you are not only interested in, but pretty well acquainted with one of the 'ologies."

"How do you make that out?"

"Why, *Pomology* is the science that treats of fruit, and you have shown that you know a 'thing or two' about apples; so there's one of the 'ologies."

"Well, you've got me there."

"I think I have. Hand me over that wormy apple. Do you know what made the hole in it?"

"A worm, of course, an apple-worm."

"Very well; but do you know the history, habits, name, etc., of this worm?"

"No: though they say the worm comes from a miller."

"Yes, a little moth or miller lays her eggs in the calyx, or blossom end of the young apple, just as it is beginning to grow, and from that egg the worm hatches which troubles the apple so badly. After this worm grows to its full size, it changes to a chrysalis, in which form it remains through the winter, and from which the moth comes the next spring, and lays its eggs again for some more apple worms. The scientific name of this insect is called the *Corpocapsa pomonella*, and its common name is the apple-worm."

"But I don't see where the 'ology comes in."

"Yes, you can; for the science that treats of insects is termed *Entomology*. So there's another 'ology in which you, in common with all other farmers, are deeply interested."

"You're doing well; go on."

"Well, let's go into the subject a little deeper. What's the soil of your farm?"

"Hard and rocky, mostly; some sandy loam in the low ground and flats."

"Any sand or clay?"

"Yes; there's a sand bed, and quite a clay bank over in the corner. There was a 'brick-kiln' down there a good many years ago."

"Any large stone?"

"Some boulders—granite; and the ledges crop out a little over in one corner of the pasture lot."

"Very well; there's another 'ology—*Geology*, which treats of the formation and structure of the earth, and of what it is composed."

"Well, I'll give up. Looks a little stormy out, don't it?"

"What makes you think so?"

"Because there's heavy rain clouds rollin' in from the water, and the wind is 'out' strong."

"That's another 'ology, *Meteorology*, which is the science that treats of the weather and the condition of the atmosphere; a science with which every farmer is more or less practically acquainted. These are only a few of the 'ologies in which every farmer is directly interested, and the principles of which are so frequently brought into his every-

day practice. It's no use for you, Smith, to be down on the 'ologies."

"Can you name another?"

"Certainly, there's *Physiology*, both animal and vegetable; the former treating of every thing that relates to animals, and the latter of plants. So you see, it is absolutely necessary for a farmer to know something of this 'ology. The sciences are intimately connected with the farmer's operations at every step of his progress, and he is not a wise man who persistently opposes whatever seems to him to smack of science, or is comprehended under the heading of an 'ology."

The race of anti-'ology farmers, though by no means extinct, is becoming "small by degrees and beautifully less," and a generation of more intelligent tillers of the soil is rapidly coming to the front. It is well that this is so, for our lands, impoverished by anti-'ology treatment, can only be brought up by a persevering application of scientific principles in the way of manuring, rotation of crops, stock-feeding and thorough culture. It is encouraging to any one who has watched the history of agriculture during the past half century to note the signs of progress on every hand. These are numerous, and among them, one of the most conspicuous and significant is the large and increasing number of those who not only read but write for agricultural periodicals, and in competition for prize essays. The necessities of farming will compel a higher standard of intellectual attainment in order to succeed. Competition gradually becomes more close, and as the different parts of the earth are brought nearer to one another by improved modes of communication, the markets will put supply and demand into such proximity with one another as to call for more forethought and better management as the years roll on. Yes, farmers must study the 'ologies with increasing diligence.

I AM glad to see that the Ontario Government is taking steps to multiply farmers' institutes. These furnish a most valuable school for those who cannot go to an agricultural college, or bestow much time upon study. They are especially fitted to stir up young farmers to self-improvement. It is to be hoped that the efforts being made will be encouraged in all parts of the country, and that the institutes, which must necessarily be infrequent, will be supplemented by farmers' clubs, Granges, or any permanent local organization that is preferred. All winter long there should be a monthly, or still better, a fortnightly meeting in every neighbourhood, for the discussion of practical subjects connected with farming. There is no lack of talent, if it were only brought out, but organization of some sort is needed. Beside the benefit of these meetings in the direct promotion of agricultural improvement, they are of great value in training "the young idea," not only how to "shoot," but how to express itself. Such meetings are the best possible training school for the public speakers of the future in municipal councils, political and other conventions, and even in Parliament.

W. F. O.

The common lilac, if kept headed down for a few years, makes a dense hedge, and behind a low stone wall makes an excellent fence. There are many other shrubs, such as the snow-berry, the buckthorn, the elder, the strawberry tree and the barberry, which make fine screens for the concealment of unsightly objects about one's premises. Climbing shrubs, such as the prairie rose, the clematis, the Virginia creeper, and the deciduous ivy, look well on porches and arbours, but exhibit their graceful foliage to the best advantage on trees, which are their natural support.

FOR THE RURAL CANADIAN.

A PLAIN FARMER'S IDEA ON TURNIP GROWING.

Yes, I am only a practical farmer. I don't know much about theory. My knowledge has been gained from practice, hard practice, though I don't dislike theory. So much do I admire it that I sent my son to the Agricultural College at Guelph, and he has come back chuck-full of theory; yes, chuck-full of it, sir, and now he is getting a little practice. On casting our eyes toward the barn-yard we observed the aforesaid theorist indulging in the healthy practice of load ing manure. Yes, I grow a good many turnips. Practice has taught me that for winter feeding stock they are about the best thing. My son says they are nearly all water, ninety per cent., I think he says. By the way, I see that some of the writers in your journal are down on turnip growing because they contain so much water, saying it would be easier to feed dry food and then fill the animals with water. That may be all very true, but the difficulty is to get them to fill up with water. Stuff them with chopped grain, but yet they will not drink heavily. You might just as well condemn feeding on grass, (which, to my mind, is the natural food of cattle, because I have read that the richest grasses are nearly all composed of water, and if we come down to the fine point, what is there that does not contain a great proportion of water? Flesh is tissue and water, but, as I said before, not being a theorist, I must content myself with what I picked up from practice, from which I found that turnip growing is most profitable, and the farmer who don't plant them don't treat his land fairly.

Tell you what it is, one-half the farmers are ready to condemn turnip growing because of the trouble. Now, you have been pretty much all over this section, sir, and this is the part of Canada that grows the most turnips. Tell me, do you find any cleaner farms, the land in better till, or where they raise larger crops than we do around here? Not much, I guess. To grow turnips the land has to be thoroughly worked, not merely scratched over, then manured, and then, hoeing keeps down weeds. By this means the land gets fair play. If a man grows turnips he must do something with them, so he has to keep stock to eat them, which of course make manure, without a supply of which no farm can be carried on successfully. The turnip tops are mostly eaten on the field or ploughed in, so the land is not robbed of much except the bulbs themselves. Land thus treated is ready for any crop without much fear of failure, excepting from climatic causes. Then, in feeding stock, practice has taught me that cattle prefer turnips to any other kind of food. Yes, sir, last winter my son persuaded me to get a pulper, and we tried an experiment. We put up six steers, and fed them nothing but pulped turnips mixed with chopped straw. What was the result? In the spring a dealer came along, and after looking at the cattle said they were the finest and best fed steers he had seen for some time, and that we had not spared the grain. I could scarcely keep from laughing, and with difficulty persuaded him to believe that they had not touched grain for months. What do you think of that sir, for turnips? I grow a few mangels for the milch cows, but they would sooner eat turnips.

I would like to tell you a little instance of what happened at a meeting of a farmers' institute. The learned professors delivered lengthy lectures on what different foods contained. They were especially hard on turnip growing. After the lectures an old farmer arose and said that he did not for a moment dispute what had been stated, but would any of the learned gentlemen explain what was there in turnips that made cattle so

fond of them as to leave other food and partake of turnips, and how was it that cattle thrived so on them? No reply came. To my mind they are the nearest approach to grass that we can get during the long winter months when there is no grass, and that's why cattle like them. Yes, sir, I shall try to give my stock plenty of grass in summer and roots in winter, though they may be all water.

RUSTICUS.

FARMERS AND BRAIN POWER.

The *Scottish Agricultural Gazette*, one of our esteemed exchanges, published at Edinburgh, Scotland, expresses ideas broad enough to go around the world in the following. It says:

Some people imagine that farming requires very little outlay of brain power; but this is a great mistake. "I honestly believe," said one, who is himself a successful agriculturist, "that the farmer who will work his brains till noon, and his hands the balance of the day, will outstrip him who rises at five, and toils till nine at night."

Our most successful farmers are not those who work hardest at manual labour; they work, nevertheless, with all their energies. None are exempt from labour; but in all it is not equally well applied and directed. If we take any two men, physically equal, the one will accomplish most who excels in brain power. Therefore, let that small enclosure within his own skull be cultivated as assiduously and as carefully by the farmer as is his choicest crop. Whatever farming may have been in the past, the time has come when the highest intelligence is demanded as a necessary qualification on the part of the agriculturist.

Book-farming, however, is decried, and "farmers are not a reading class." We, on our part, neither underrate the practical knowledge, nor overrate the importance of the scientific study of farming. The one is needful to the other, and science is futile if it does not help practice to do its work better and cheaper. But there is one great want in most of our farm-houses, and that is the almost entire absence of agricultural literature, both in book and periodical form. The volumes one most expects to see on a farmer's table are generally conspicuous by their absence; and, will it be believed, there is many a farmer who does not take in an agricultural newspaper. Boys and girls grow up on the farm, and spend those years which will so much influence their lives without ever once being led to realize the momentousness of what is before them. They grow up, too, without a taste for reading, and so miss a never-failing source of happiness, not to speak of mental culture and refinement. For all this, the want of suitable books and papers on the farm-house table is to be blamed. The bodily toilers come in thoroughly wearied, and often with a longing for relaxation of some kind; but there is no paper, and no interesting volume that they can turn to, and so they live within themselves, as it were, and, in too many cases, sleep away their existence.

But just let the young farmer think for a moment of the forces, the properties, principles, influences, the laws—developed and undeveloped—with which he must come in contact and understand if he would succeed. So far from being less dependent upon the arts and sciences than those engaged in other occupations, the farmer stands in need of a far wider range of knowledge than is requisite in almost any other business; and farming need not prove the unvarying and monotonous life it is often said to be, for every operation on the farm is an incentive to inquiry and stimulant to thought. Men of one idea cannot succeed in farming, and those engaged in it, the young especially, should lose no opportunity of adding to their present stock of ideas by reading, by investigating for themselves, and through intercourse with others.

If farmers were to read more, they would also write more to farm papers. Every one should be ready to exchange ideas with others. This does good all round.

HOUSEHOLD HINTS.

The cloak of medium length has had its day, they must either be very long or very short. For these, dull red cloth is coming in favour.

No more sensible and tasty outside wrap can be made for children than the Newmarket. For fabrics plush, homespun and astrachan are used.

An elegant cover for a small table may be made of a copper coloured plush scarf, with silk tassels of same colour, run through crescents at the edge.

A CURTAIN for the lower sash of a window, made up plain of cotton scrim, painted in bold designs of morning glories, nasturtiums or other showy flowers, is very effective and pretty.

THE newest mantles and coats are made without plaits in the back. Green billiard cloth very similar to that used on billiard tables is a novelty for tailor jackets, to be worn by young ladies with black, green and brown dresses.

CAN all the good cooking apples that are imperfect, and will not keep, for winter use. It is a great convenience to have them all ready to put on the table. As fast as your jars are emptied, fill them again when you stew apples for dinner.

SAUSAGE MEAT is much better chopped than ground, but in either case should be made very fine. Use the finest dairy salt and pure pepper. Put one pound of salt, six ounces of black pepper, and a teaspoonful of red pepper, to every fifty-five pounds of meat. Sage, used in moderation, is a great improvement to the seasoning.

A GOOD way to make use of old red table cloths which are no longer suitable for the table, is to cut them in good-sized pieces and keep them in a drawer in the pantry, and on baking-days bring them forth to lay the warm bread or cookies or cakes upon. They may take the place of towels in many other ways and prove a substantial economy.

THIS makes good corn bread: Beat two eggs very light, mix alternately with them one pint of sour milk, or buttermilk, and one pint of Indian meal. Melt a teaspoonful of butter and add. Dissolve one teaspoonful of soda in a portion of the milk, and add the last thing. Beat hard, and bake in a pan in a quick oven for twenty minutes, or if preferred in small cakes on a griddle.

IN almost all cases of poisoning the following remedy will prove sufficient: Mix together a heaping teaspoonful of table salt and as much ground mustard, in a teacup of tepid water. This will act as an immediate emetic; but lest there be any particle of poison left in the stomach, swallow, directly after the vomiting, the white of an egg or several spoonfuls of sweet oil, butter, or lard.

ANOTHER pretty cushion-cover is made by cutting a suitable figure out of ribbon or brocade silk; apply this to a square of satin, and outline the figure with gilt cord or very fine braid. Thick lace covers over crimson silk are pretty and easily made; a bow at one corner improves it; fanciful pen-wipers are made of gay-coloured flannels with a bird's head in the centre. If you have had hats trimmed with birds, and they are somewhat ruffled, you can utilize them in this way.

A CORRESPONDENT says: Take one cupful of oatmeal and five cupfuls of water; stir several times during the day, let it stand over night and then pour off all the water and the coarser part of the meal. Strain through a fine sieve and add bay rum to it until it is of the consistency of cream. Bathe the hands freely with it and draw on an old pair of kid gloves, and you will be delighted with the effect. This is equally good for a chapped face. Bathe the skin with it, letting it dry in.

HORSES AND CATTLE.

BLANKETING HORSES.

To "blanket or not to blanket," that's the question. Whether the animal be a riding, driving, or draught horse we most emphatically give our verdict in favour of blanketing. Many persons say that if the stable is warm enough there is no occasion to cover the animals, and that horses thus treated are tender and liable to catch cold; but how many of our stables are warm enough, especially if well ventilated? Most of them are a little too well ventilated for comfort. A horse comes in from work, the temperature of the outside atmosphere is perhaps low, yet, coming indoors, the stable feels warm, though if a thermometer were interviewed it would probably be ascertained that the temperature inside was a little above freezing point, perhaps in the neighbourhood of forty degrees. The animal's blood has been quickened by exercise; he has been brought into the stable to be fastened up and remain inactive. It does not take long before he becomes chilled, as is evinced by his hair standing on end, "like quills upon the fretful porcupine." Yet, forsooth, he must not be blanketed—it would make him too comfortable. The idea of using blankets is not so much to keep out the cold as to keep in the warmth. This can be demonstrated on human beings if one is at all sceptical on the point, by removing the clothing and remaining quiet in a moderately-heated apartment, say of about sixty degrees. In a very short time the resumption of the garments will be very welcome. As to covering horses rendering them tender, this we must deny. Perhaps it would if they were brought out of doors and left standing uncovered in the cold, but there is no necessity for so doing. The covers can be kept on till the animals are actually about to commence their work. When they are resting the covers should be thrown on them, that is providing they are not sweating, when they should be allowed a few moments to cool off before the blankets are put on. As the nights are invariably colder than during daytime a heavier covering should be used. An animal, no matter of what description, if continually exposed to the cold soon gets covered by a rough, coarse coating of hair, but the one that is kept well blanketed will soon display the advantage by its sleek coat.

Some will say: "Oh! give them a little more feed during the cold spells." Well, that little extra feed would soon pay for a set of blankets, and the horse will have more life and spirit in him than if left uncovered. "But it is not natural to cover up animals, and Dame Nature has kindly provided them with a good covering, rendering any artificial ones unnecessary." Yes, my friend, we do many things not exactly in conformity with the laws of nature. We cover ourselves up artificially, and when the weather is a little colder than usual we indulge in more wraps, and if chilled go to a fire and take a little solid comfort out of that, but the poor dumb brute is unable to do anything of that sort; he must, if chilled, quietly and passively submit. How frequently do we see horses restless in their stalls during very cold weather. It is simply an effort on their part to promote a free circulation of the blood, just the same as a man will slap his hands and stamp his feet when excessively cold. Many stables are exceedingly warm when closed up; yes, too warm for health. The heat thus obtained is caused by the breath and the heat which radiates from their bodies. The animals soon consume what pureness there is in the atmosphere, and breathe the same air over and over again till it becomes positively poisonous. Better, far better, have plenty of fresh air for them to

breathe, and cover their bodies artificially. Mind we don't advise blanketing to be done in a half-hearted way—one day done, and another left. If the weather is a little warmer than usual do not discard the blanket, but use a lighter one.

While on this subject it will be as well to draw the attention of drivers and teamsters to the cruel practice of leaving their horses standing outside of stores, hotels, markets, etc., after being driven perhaps a long distance and then allowed to remain uncovered while their owners are being made comfortable. This is a very good way of sowing the seed of many a disease that horse-flesh is heir to, to say nothing of the cruelty of the action. A word to the lazy man, blanket your horse and it will save you a great deal of grooming. Horses thus treated don't require nearly so much cleaning. Perhaps a consideration for self will induce you to be a little more attentive to your faithful servant. It is not very much trouble carrying the blankets with you to your work in the fields or elsewhere. Your dumb friends will not object to the extra trouble for the sake of the additional comfort.

THE CLYDESDALE.

The greatest rival of the Percheron horse in this country, as a draught-horse, is the Clydesdale. It is very difficult for one who has not had a great deal of experience with both breeds to judge which has the most merits. Some of the friends of the Percheron claim that it has the better foot; that the Clydesdale has a flatter foot and more liable to become lame. The Powell Brothers, of Pennsylvania, have been, in past years, the largest importers of Clydesdales in the world. Recently they have added Percherons to their breeding stud, and imported large numbers of them. They informed the writer, last year, that they preferred the Clydesdale to the Percheron; that they thought he had a little more energy and endurance; but some allowance must be made for their long attachment to the former. In our opinion farmers will make no great mistake if they cross with good animals of either breed.

The Clydesdale (Scotch draught-horse), says Youatt, owes its origin to one of the Dukes of Hamilton, who crossed some of the best Lanark mares with stallions that he brought from Flanders. It derives its name from the district on the Clyde, in Scotland, where it is principally bred. He declares that it is a good kind of draught horse, and particularly for farming business and in a hilly country. The Clydesdale is larger than the Suffolk, and has a better head, a longer neck, lighter carcass and deeper legs; he is strong, hardy, pulling true, and is rarely restive.

Mr. Low says that "the Clydesdale horse, as it is now bred, is usually sixteen hands high. The prevailing colour is black, but the brown or bay is common, and is continually gaining upon the other, and the gray is not infrequently produced. They are longer in body than the English black horse and less weighty, compact and muscular; but they step out more freely and have a more useful action for ordinary labour. They draw steadily, and are usually free from vice. The long stride characteristic of the breed is partly the result of conformation and partly of habit and training; but, however produced, it adds greatly to the usefulness of the horse, both on the road and in the fields. No such loads are known to be drawn, at the same pace, by any horses in the kingdom, as in the single horse carts of carriers and others in the West of Scotland."

Mr. Low says further: "The Clydesdale horses, although inferior in weight and physical strength to the black horse, and in figure and showy

action to the better class of the draught-horses of Northumberland and Durham, yet possess properties that render them exceedingly valuable for all ordinary purposes. On the road they perform tasks that can scarcely be surpassed, and in the fields they are found steady, docile and safe."

As the Clydesdales trace back their origin, on one side, to Flanders, and as the progenitors of the Percheron were supposed to have come originally from the same province, it is not impossible that there is kindred blood flowing in the veins of these great rival breeds.

ABUSE OF ANIMALS.

Every pettifogger and raw unfledged professor of science so-called—regardless of the fact that experiment is only valuable for discovering new things—begins "experimenting" for the sake of gaining some questionable notoriety. The man who shut up a wretched calf in a dark dungeon for three months to test the effect of light upon its growth, should be made to memorize Byron's "Prisoner of Chillon" in a similar place by the light of a tallow dip. It was the grossest and most useless cruelty. Such misery could not fail to retard growth. Common-sense teaches that to make animals thrive we must make them comfortable and happy. The stock-owner who can realize this great truth and act upon it will never need a hospital or a burying ground about his premises.

A horse over-driven, left out in a cold storm unprotected; whipped furiously home at midnight and then fed a larger mess of oats than usual because he was tired—I have seen such a one sick the next day and "drenched" with a whole pailful of filthy decoction which was forced down his unwilling throat by the aid of torturing "twiches" upon his tender upper lip by which his head was held immovably elevated. This is a typical case. The grossest neglect and ill usage, overfeeding or starving, irregular watering, exposure and other bad management produce all the ills that horses and cattle are heir to, and to remedy these wicked blunders we demand a host of green, half-educated, self-opinionated, dictatorial veterinary doctors, who, not employed adequately to their own supposed merits, create employment by getting up scares.—F. Warner.

HOBBLING HORSES.

A piece of raw hide, four feet long by two and a half inches wide, is fastened to the forefoot below the fetlock, by means of a well padded strap and buckle, and should be so attached that it will drag flat on the ground. Two may be used if one is not found sufficient, one on each front foot. In travelling the animal steps on the raw hide straps with his hind feet, and will be found very close to camp every morning, or in the pasture. It is much better than a poke to keep him from jumping the fence. I find that hobbling a horse by the feet by chaining or strapping them together, makes him sore and stiff in a short time; and if I cannot use the raw hide and strap, I use a rope about seven feet long, by tying it around the front legs well above the knees, in a bowline knot, then throw the end over the back, and tie to the rope around the legs, so that it cannot slip down. He can travel slowly very well, but is very easily caught.—*American Agriculturist for December.*

When colts are foaled in the spring they should be weaned long enough before cold weather so as to get used to eating other food. A few oats given every day through the winter will add fifty per cent. to the value of the colt, in any year up to five or six. It is a great mistake to starve young colts with a view to making them hardy

SHEEP AND SWINE.

SELLING LAMBS IN AUTUMN.

The right way to cause a flock of sheep to deteriorate is to sell off the best ewe lambs in autumn. The following on this point is from the *Sheep Breeder*:

Fat lambs are always in good demand in autumn, and the farmer is usually in need of the money that can be realized from them. In his anxiety to turn the needed cash he is quite apt to overlook the ultimate wants of his flock. He is well aware of the fact that old sheep are not profitable in any capacity, yet he thinks he will change them another season, and turns his lambs over to the butcher; so the bare-bellied, unprofitable old ewes are kept over again, and the quality of the flock generally deteriorates.

However well it may pay to sell young lambs in autumn, it certainly does not pay to keep old worn out ewes to breed from. Enough of the best ewe lambs should be saved to take the place of these old ewes. A ewe should not be kept to more than the age of four or five years. Many of them are at their best at six years of age, but as a rule they begin to deteriorate after lambing three or four times.

Old sheep may be turned off to very good advantage—even old ewes. By keeping them away from the ram in autumn, they may be fattened and sold in early winter at small cost. Sheep usually come up from the pasture in autumn in excellent condition. This start should not be lost. Commence graining them lightly even before they are entirely removed from the grass. Commence early to keep them under cover of sheds or stables and they will not fall away, as is too often the case in early winter.

Wethers can be profitably kept until three years of age, when they can be made to dress 100 pounds and upwards. I think it more profitable to keep the greater part of the flock to this age than to turn off when but six or seven months old.

Early spring is a good time to turn off fat wethers. Sheep fatten well in cold weather. The farmer has more time to attend to them in winter than at any other season of the year, and by fattening in winter and holding until spring the fleece is taken off and sold separately, by which plan much more can be realized from it. They may be clipped and sold in April by this method. Mutton usually commands a good price at this time, while the wool may be held as long as desired.

On the whole I do not believe it good policy to turn off so many lambs in autumn. I think that the flocks are too much kept down in this way, and that the farmer cannot realize to the full on such young animals. We must consider for the future as well as for the present in these things.

PIGPENS.

For all their fat, which might seem an indication of great capacity for enduring cold, pigs really suffer more than most animals from the extreme cold of our winters. Given as good shelter as other farm animals they would no doubt stand fully as much with as little suffering and consequent loss; but the fact is that, as a rule, they are not given as comfortable quarters as other animals are.

A good, comfortable, roomy hog house is usually the last building to be put up by the farmer. Comparatively few of them are found at best. What does the word pigpen suggest to the mind? A little, low structure made of odds and ends of lumber, battened, perhaps, to keep out the storm, and perhaps not. There is but a board's thick-

ness at best between the pigs and the outdoor air. Nine times out of ten it is not furnished with any kind of a door. A square hole permits passage in and out, and it is not to be expected to admit pigs and exclude cold winds. Any place that pigs can crawl into is termed a pigpen, and vaguely thought to be quite sufficient to meet the wants of the case.

Pigs cannot or will not keep clean in such places. The particular corner that serves as a resting place is as wet and foul as any other part of the pen. This completes the discomfort of the poor pig. He must lie in a wet mass of filth through the stinging cold nights of winter, which is only kept from freezing about him by the warmth of his own body. An armful of dry straw is a luxury that is too seldom visited upon him.

Economy as well as humanity demand something different from this for our pigs. Pigs cannot thrive under such conditions. It will take a largely increased quantity of food to keep up sufficient vitality to enable them to withstand the hardships of winter, to say nothing of laying in additional flesh or growth.

Now, the farmer may not always be able to go at it at once and put up a good hog house. A good building of this kind involves considerable outlay of time and material. But he certainly need not oblige his pigs to endure the discomforts of a cold winter in a pen such as above described, even if he does intend to build the next year. Don't let the poor animals pass another winter in such a place, when a few hours' labour, and such materials as are at hand on every farm, will make it habitable and comfortable.

Sheet up on the inside of the posts with any lumber at hand, thus forming a space between the two walls that may be stuffed full of straw and well rammed down. Hang doors on hinges at the top that the pigs can swing in and out at pleasure and which will close after them and keep out the cold and storm. This makes quite a comfortable pen for winter if bedding be plentifully supplied. The labour and expense of fixing will save many times its cost in the feed consumed during the winter, and the farmer will have the satisfaction of knowing that the animals under his care are made comfortable.—*W. D. Boynton, in Farmers' Review.*

TRICKS IN THE SHEEP TRADE.

The "big fleece" deception only deceives green-horns. Anybody who knows anything of sheep, knows that the thirty or forty pound fleeces are either three-fourths yolk or grease and sand, or are partly two years' growth besides. The sheep-shearing "festivals" may well be festive over the ludicrous business of cutting a fleece of this kind, and solemnly weighing it and awarding a prize to the man who made it!

Then there is the getting up of the sheep for the show and for sale—the stubble shearing, by which scarcely any wool is taken from the rump and other parts, to give squareness and size to the carcass (?) as well as length to the wool. Moreover, the appearance of yolk is given by dusting yellow ochre into the wool, and this shaping and colouring, at times, secures a first premium at a show, or \$40 or \$50 extra in the sale of the lamb.

I will tell a story which will probably amuse the party whose trick is exposed, as well as others. I was showing him various samples of soapstone—a heavy, greasy-feeling mineral—used for various adulterations, such as making soap, candy, paper, axle grease, as well as for some legitimate purposes. He asked me to get him a few pounds of it. I told him where he could get it. I met him at a State Fair not long after, and he showed me his sheep with blue and red ribbons around their necks. "That soapstone did it," he

said. "You never saw such glossy, soft and silky wool in your life;" and he laughed, and I thought.—*Cor., N. Y. Tribune.*

WHY HOGS GET DISEASED.

Some things are self-evident, others are only supposed to be. We know our hogs die; but why, we do not know. We are sure they die of disease, but what that disease is we are not sure of. There must be a cause for the disease, but what that cause is, whence it comes and why, is not so evident. The carcasses of wild animals are therefore found one mass of muscular tissue, or lean meat, and that is their natural condition. During the process of summer feeding they may, if food is abundant, lay on some fat but, if they do, it is only an incumbrance to them, and of no manner of service unless as a supply of fuel for consumption in winter, when food is scarce and the cold exhaustive. Nature supplies to such animals but little fat-forming food. It is only in a state of domestication that animals are made and kept fat, and in that condition they carry that which is a source of weakness instead of strength, and of disease rather than health. No man seeks fat as a source of strength, and though a moderately stout man may be called healthy looking, it is more apparent than real; hence the more he has of it the weaker he is, and the greater is the derangement of the vital functions which we call disease. Do we ask then whence comes disease in our hogs? We answer, fat is a condition of disease, and the more fat the more disease.—*Rural World.*

Some people think that sheep must be out of doors, or have a "mighty cool" place, or they won't do well. Don't fool yourself, for this is a lazy man's whim.

A MICHIGAN farmer has conquered Canada thistles in his sheep pasture by putting a small handful of salt at the root of each thistle. The sheep do the rest of the work.

SHEEP husbandry is steadily declining in France, the present number of sheep and lambs in that country being less by about 11,000,000 than it was a few years ago.

THE increasing preference of manufacturers the past season for unwashed wools to washed has been more noticeable of late, in that many lots of washed wools held at what have been considered relative prices, are still unsold on all markets, while unwashed, of some grades, are all sold. It is better for all concerned that wool should be shorn unwashed.

SHEPHERDS should not neglect their flocks at this time in the belief that they require no protection until winter comes, for that is a great mistake. Sheep ought to have shelter from the long, cold autumnal rains. During these rains they get soaked to the skin and suffer greatly from the cold, and this tells on their health and reduces their condition. It is very convenient to have rude sheds out in the field for the sheep to run under at this season, to escape the rain and to save the trouble of driving them to the stables.

It is not a good practice to give sheep grain early in the morning, unless they sleep out doors and have an opportunity to get up and stir around briskly awhile before feeding. In a flock of sheep there will always be found some that resemble certain persons—destitute of appetite in the morning. If the grain ration is given out they will not come at all, or so listlessly that they will not get a fair proportion, and they will lose condition. I have found that in a flock of 150 lambs, ten or twelve would scarcely touch grain in the morning, but at night not one would stand back.

POULTRY AND PETS.

FARMERS' POULTRY.

In the many barn-yards we visit from time to time we cannot help being struck by the appearance of the fowls ranging around, scrubs in the veriest sense of the word. Yet it costs just as much to feed one of those miserable things as to keep a good one. "Oh! but we don't feed them," said one farmer, "they just have to pick up what they can." Well, a good bird will pick up his living just the same and be of greater value. It almost inclines a person to the belief that good birds are scarce, and beyond the reach of the average farmer. Such, however, is not the case. Well bred birds of almost any variety can be obtained from first-class breeders at very low figures. It is not necessary that the birds should be able to take honours at the leading fairs. Good thorough-breds will be good enough, and these the breeders will be glad to sell at low figures. It is only for show birds that extravagant prices are paid, and that is only right, because the purchaser buys with the intention of soon remunerating himself for his outlay by obtaining cash premiums. With the farmer it is different; he wants to improve his stock for increased egg production and better table qualities. If a farmer having poor specimens of poultry does not feel inclined to root out all his old stock and replace with better varieties, let him kill off, yes, kill off all the old cock birds, don't leave one about the premises, and replace with birds of better quality, which will, even during the first season, improve the flock. Lately we saw a very good strain of barn-yard fowls produced by crossing a Plymouth Rock on Games, the result being short legged chunky birds. The owner said they possessed all the good laying properties of the Games, without their natural wildness, and were not so broody as the Plymouths. But the Gray Dorkings or Brahmas will make their mark as soon as any and be found equal to the best.

POULTRY NOTES.

"What varieties of poultry are in most demand this year?" was the question we propounded to one of the leading breeders. "Light Brahma are again coming to the fore, and I don't wonder at it," was the reply, "for taking them all in all, they are the best class to breed. Maturing early, good layers, hardy, and for table use they are only excelled by the Games for juiciness and are something to cut at. Some persons think they consume too much food, but in my opinion they eat very little more, if anything, than many of the smaller varieties, and if the eggs laid by a Brahma for a season were weighed, they would be heavier than perhaps the greater quantity laid by a hen of the other varieties." On inquiry from other prominent men in the business, this opinion was confirmed.

GROUND BONE.

Poultry raisers should not neglect to use sufficient raw bone, either crushed or in the form of meal. It contains lime, as do also oyster shells, but it also contains animal matter which is of great value. Bone when burned, is of comparatively little value over oyster shells, but when crushed or ground raw, supplies value peculiar to itself. All classes of poultry are extremely fond of it. Care should be taken to have it pure and sweet. It is good for all classes and ages of poultry. For young chicks it should be used in the form of meal, mixing a small quantity two or three times a week with their soft feed, say one quart to a bushel of corn meal.

For young turkeys it is almost indispensable, to

prevent leg weakness. At about the time of their "shooting the red," when their health becomes established and they grow apace, the development of their frames and legs requires a more liberal assimilation of material than can be afforded by the usual articles of food. It is well to begin to mix a little bone meal with the feed of small turkeys, and from the time they are four weeks old it can be used freely.

No injurious effects will follow, for it is nutritious, and especially it supplies material to rapidly develop and strengthen the bones of the legs. All raisers of young turkeys know that leg weakness is one of the evils to which they are exposed, and this is a natural and excellent preventive; and here is one of the many cases where prevention is far better than cure. Brahma and other Asiatic chicks, for the same reason, are greatly benefited by its use.

Raw bone has been proved by analysis to contain every part of an egg—white, yolk, and of course shell. It should be constantly kept in a special place in the pen or apartment of laying hens, as they will consume large quantities of it, and it goes chiefly to egg production. Granulated is the best form in which to place it before adult fowls, and in this shape it keeps fresh longer than when ground into meal. Bone is one of the principal ingredients in the composition of most of the "egg foods" in the market.—*American Poultry Yard.*

Nest boxes should either be thoroughly cleansed and whitewashed, or else burned and replaced by new ones quite frequently.

LADIES who apply themselves closely to the business are almost invariably among the most successful poultry raisers.

It does not require a great quantity of water to rear ducks successfully; indeed, they must not be allowed freedom to it while small.

Be sure and sprinkle a little pulverized charcoal about the poultry quarters. The fact that it soon disappears is evidence that more is required.

WHERE hens are still confined to their yards, do not fail to supply them with fresh grass and weeds every day. Plantain is very acceptable to them.

It is said that France exports more geese than any other country in the world. What is it the French do not produce? Their habits of production and economy are enough to make a thriving nation.

WHERE hens are kept in stables, they are sure to become lousy, and the lice will soon get into the horses, to which the vermin are a great torment. Keep your hens in a house to themselves. It only costs a trifle to build a comfortable poultry house.

THE eggs laid by an active, healthy hen, supplied with good, fresh food, are much superior to those laid by the common scavengers of alleys, back-yards and pigpens. The difference in colour, smell and taste is very evident to one who has given the matter a little attention.

It costs no more to feed a thorough-bred hen than a scrub, and the extra eggs she will lay by the time she is one year old will nearly always pay the first cost. Then, when one remembers that there is a constant demand for pure stock at good prices, any one can soon calculate the loss sustained by breeding poor fowls.

THE dull times are driving many people to poultry keeping. This is as it should be. Many a man, by the judicious use of a portion of his leisure which would otherwise prove idle, might construct an inexpensive poultry yard on ground that would otherwise be useless, and, with a very small outlay, provide himself and family with a dozen good pullets that would by next December be ready to supply them with eggs "to keep and to sell."

CREAM.

Mrs. LANGTRY has dyed her hair red. Many of her admirers have painted the town the same colour.

BONNETS keep going up, and yet they are called Fall bonnets. This is a contradictory world, my masters.

AN old poet speaks of the "red-leaved tables of his heart." Tennyson and some other bards keep their old lumber in their heads.

"Do you know that Charley indicates that you have wings?" "Ah, I see; he called me his angel." "No; he said you were a little goose."

A MAN that has plenty of corn in his barn is always of an even disposition, but the one who has it on his feet is invariably cross-grained.

MEN who drive, according to Robert Bonner, are never ill-natured. True; slave drivers had streaks of good nature. The backs of the negroes showed it.

"I HEAR you have a new baby at your house." "Yes, and she is an excellent cook." "How's that?" "Well, she has been making us stir about already."

A SMALL boy, who stood gazing wistfully at a large candy man in a city confectioner's window, suddenly exclaimed: "I could lick that fellow with both hands tied behind my back!"

JUDGES and senates have been bought with gold; Esteem and love were never to be sold.—*Pope.*

If little labour, little are our gains, Man's fortunes are according to his pains.—*Herrick.*

LEARNING is but an adjunct of ourself; And where we are our learning likewise is.

—*Shakespeare.*

EURONS, like straws, upon the surface flow; He who would search for pearls must dive below.

—*Dryden.*

TRUE charity makes no noise in the world. A person who does good out of pure motives never spreads it abroad in the circle in which he moves, nor makes it public through a newspaper.—*George Eliot.*

A FASHION item says that great discretion must be used by wearers of horizontal stripes, as they are not becoming to any but very tall and slender figures. Persons contemplating a residence in the penitentiary should paste this in their hats.

At a negro wedding, when the minister read the words, "love, honour and obey," the groom interrupted him, and said: "Read that again, sah; read it once mo', so's de lady kin ketch the full solemnity of de meanin'. Ise ben married befo'."

"I'd like you to help me a little," said a tramp, poking his head into a country general shop. "Why don't you help yourself?" returned the proprietor, angrily. "Thank you, I will," said the tramp, as he picked up a bottle of pickles and two loaves of bread, and disappeared.

How careless and negligent we often are of friends and relations while they inhabit with us this terrestrial sojourn; and how we first repent of our insensibility when the fair union, at least for this side of time, is finally cut asunder.—*Goethe.*

MR. ISAACSTEIN: "My frent, I sells you dot goat for seventeen tollar und a ca-vorter, und I will never dake a cent less." Customer: "What's the quarter for?" Mr. Isaacstein: "Vot's dat ca-vorter for? Dot's my profit on de goat. You tink I can subbort a family, und give dot goods away?"

A DISCIPLE of Blackstone at Albany, Ga., was met carrying home a 'possum. He was asked: "Hello, Jack, what is that?" "'Possum!" "What are you going to do with him?" "I'm going to have a big 'possum supper." "How many will be there?" "Two; me and the 'possum!"

GARDEN AND ORCHARD.

CULTURE OF THE GOOSEBERRY.

BY B. GOTT, ARKONA.

The soil best suited to successful gooseberry-growing in this country has been found to be a thoroughly drained, rich, and deeply-worked clay loamy composition. These qualities of soil are imperative, as the plant is found to be very impatient either of excessive dryness or excessive heat. This is doubtless one of the chief causes why success with it is so very precarious in our conditions. If these conditions could be but slightly changed it might be the means of determining the difference between success and failure, a difference that is very important to the cultivator. In a soil of this character, with a moderate amount of protection from dryness and heat, the success of gooseberry growing from improved American seedlings is assured. To secure these conditions location must be sought for and skillfully used. The young plants may be removed from the nursery rows when they are two years old, when they will be fine, strong, well-rooted plants, whose after-growth will make rapid progress and give good satisfaction. They may then be carefully planted in the ground, previously well and thoroughly prepared and marked off in rows four feet apart, and the plants put four feet apart in the rows. This planning will give 2,725 plants to the acre, and will give great satisfaction to the workers and pickers, and if every plant is nicely growing in its place, as it should be, it will make a very pretty plantation after the first year's growth. The ground must be kept scrupulously clean during the entire summer, and must be thoroughly pulverized and stirred up by means of one-horse cultivator between the rows both ways, and not a weed allowed to be seen. The young bushes will make extraordinary growth of young thrifty wood, and the set of fruit buds will be astonishing and will well repay all the labour and care that may be lavished upon them. In gooseberry growing, as in every other kind of fruit-culture, if one would wish to reap the highest result, increasing vigilance and constant application must be most certainly and most freely given. The annual pruning will consist in shortening in the summer's growth to a moderate extent, and in some cases in thinning out some of the crowding shoots. However, this operation is generally and best done in the early summer, as the growth of wood and fruit buds on that which is left will be so much better and more encouraging to the grower. After the wood has borne fruit some three or four years and is becoming old and feeble, it may be cut entirely out and the young growth encouraged in its place. This operation is called renewing, and is very important in all pruning for fruitfulness. The question how long will a gooseberry plantation last is a very difficult one to answer satisfactorily, as circumstances and locations have so much to do in its determination. We have known them to still remain comparatively profitable after having been fruited for twenty or twenty-five years, and our opinion is that if everything about the location and soil is right they may be made to do good service during that length of time; but we do not by any means advise this kind of thing, for we believe, on the contrary, that we get the best results from young and vigorous plants as in all other kinds of fruits, and for this reason we would advise changing the soil by a new plantation, at least after every ten or twelve years' service. Young plants are now produced so successfully and so cheaply, and so many new sorts are yearly coming out that there is no economy in running a plantation after its prime is over.

CONTINUED NOTES ON GRAPES.

BY P. H. HENDERSHOT, BERTIE VINEYARDS, STEVENS-VILLE, ONTARIO.

LINDLEY.—We have feasted on Lindley grapes as late as March 24. It is a splendid keeper, in fact we have no grape in our whole collection to surpass it in this respect. It has come through the winter better than apples and without more care, either in packing or after attention. The fruit on our table to-day is sound and in good condition, berries still firmly attached to stem, juice richer than in the fall, flavour about as good as ever and quality truly delicious. They are so good that I feel constrained to urge every reader of THE RURAL CANADIAN, who has not got it, to try a few vines of this grape. Although it is a hybrid grape, it has always proved hardy, healthy and free from mildew on our grounds, and seems able to withstand our coldest winters without injury. It may not always produce quite so much fruit as the Concord; but it is so much better in quality that we can afford to take a little less. Yet we have had several seasons when our Lindley vines produced more fruit than even the Concord. In colour it is bright red, with a delicate lilac bloom, and ripens early here, often ripening some fruit two weeks ahead of Concord or as early as Champion, but does not ripen up whole crop so soon. When half ripe it is better than many other ripe grapes. It is one of the strongest growers and will not require very rich soil. It occupies a place in our large collection which no other grape we have can fill.

WORDEN.—This variety has been steadily winning favour on its own merits. When first obtained and planted on our grounds, several years ago, it was not so highly spoken of as it is now, and is one of the few new grapes that has more than fulfilled the promises made for it. As grown here, and as we have seen it elsewhere, we should say that it is not inferior to the old reliable Concord in any important particular, while it is better in some. The vine is certainly as hardy as Concord and about as good a grower, although the canes are of more slender growth. It has always been healthy and free from disease of any kind on our grounds, and the fruit uniformly good. Some say the bunches are larger than Concord; but, as grown here, we do not think they average quite as large, but are of good form and sufficiently compact, with berries considerably larger than Concord. The fruit has a flavour distinct from the Concord, and to our taste decidedly better. It has no objectionable flavour and everybody will like it. The serious charge of dropping its fruit has also been brought against this grape; but we have seen nothing to justify the statement. It ripens here about four or five days before Concord, there being some variation in the relative time of maturity in different seasons. It will, no doubt, take a leading place among grapes of its class, especially in the more northerly sections, and if it will not supersede the Concord it certainly is one among a few others of its class which are dangerous rivals to it. There are also, however, a few other varieties which, we believe, will make their way to a foremost position, and it would be no great surprise to us if it should transpire that Mr. Bull, the originator of the Concord, has produced another seedling destined to a career scarcely less popular than its old parent.

DECEMBER DOINGS.

The winter campaign in the orchard has to be conducted more on a defensive than an offensive basis. The young trees must be fortified against the attacks of blizzards, low temperature, rabbits and mice. A simple and effectual protection

against weather and mice was described, by word and illustration, in our Oct. issue. The mound of earth, however, will not stop rabbits from gnawing the bark above it, and the practice of painting the body of the trees with a lime white-wash, into which fresh blood or carbolic acid has been mixed, is to be recommended. Simply rubbing the trunks with a piece of fresh liver or grease once every two or three weeks will also repel the sharp-toothed vermin. There are many other ways and means of protection against rabbits; but in so simple a matter we can leave the choice of old, or the invention of new modes, to the ingenuity of each individual orchardist.

Snowfall provides a white winter blanket, which affords a warm and friendly covering to the ground and the roots of trees; but in its over-anxiety to play the rôle of protector it falls alike upon the just and unjust, and covers a multitude of sinful mice, giving them a chance to tunnel unseen to the young tree, which its owner had neglected to protect by a mound of earth, and feed on its bark. In such a case the young orchard needs attention after every snowstorm; for the snow close to the trunks of the trees must be packed down hard—trodden down with the feet, a ninefold trouble which the "mound in time" would have saved you.

Never be tempted to put coarse manure close around young trees in the supposition that such material might be useful as a mulch and for winter protection. Mice will congregate there and certainly girdle the trees.

This is about all we can do to assist the young orchard. In its hour of greatest need, when attacked by winter's icy breath and its fearful blizzards, we desert it and play "possum"—in the warm room, by the blazing fire, safely housed and laughing to scorn the winter's fury. We have done our duty and feel entirely safe for the orchard.

Still, in the meantime, we have to put our wits to work, studying out a plan for next spring's aggressive campaign; for every good farmer and fruit-grower has to keep on planting. Now is the time to draw a map or plan of the orchard which you intend to plant in spring. Look over the lists of varieties; consult with your neighbours. Get into correspondence with a reliable nurseryman and send for his price-list. Make your preparations early. The early bird often gets the biggest bargains.

SOILS REQUIRED FOR FRUIT-TREES.

The best soil for the production of the apple is a deep, rich, moist loam with a sandy subsoil; although it succeeds moderately well upon any soil not too dry.

The pear delights in a deep, rich, warm loam, with a clay subsoil.

The plum requires a deep, moist soil; but there must be no stagnant water in it.

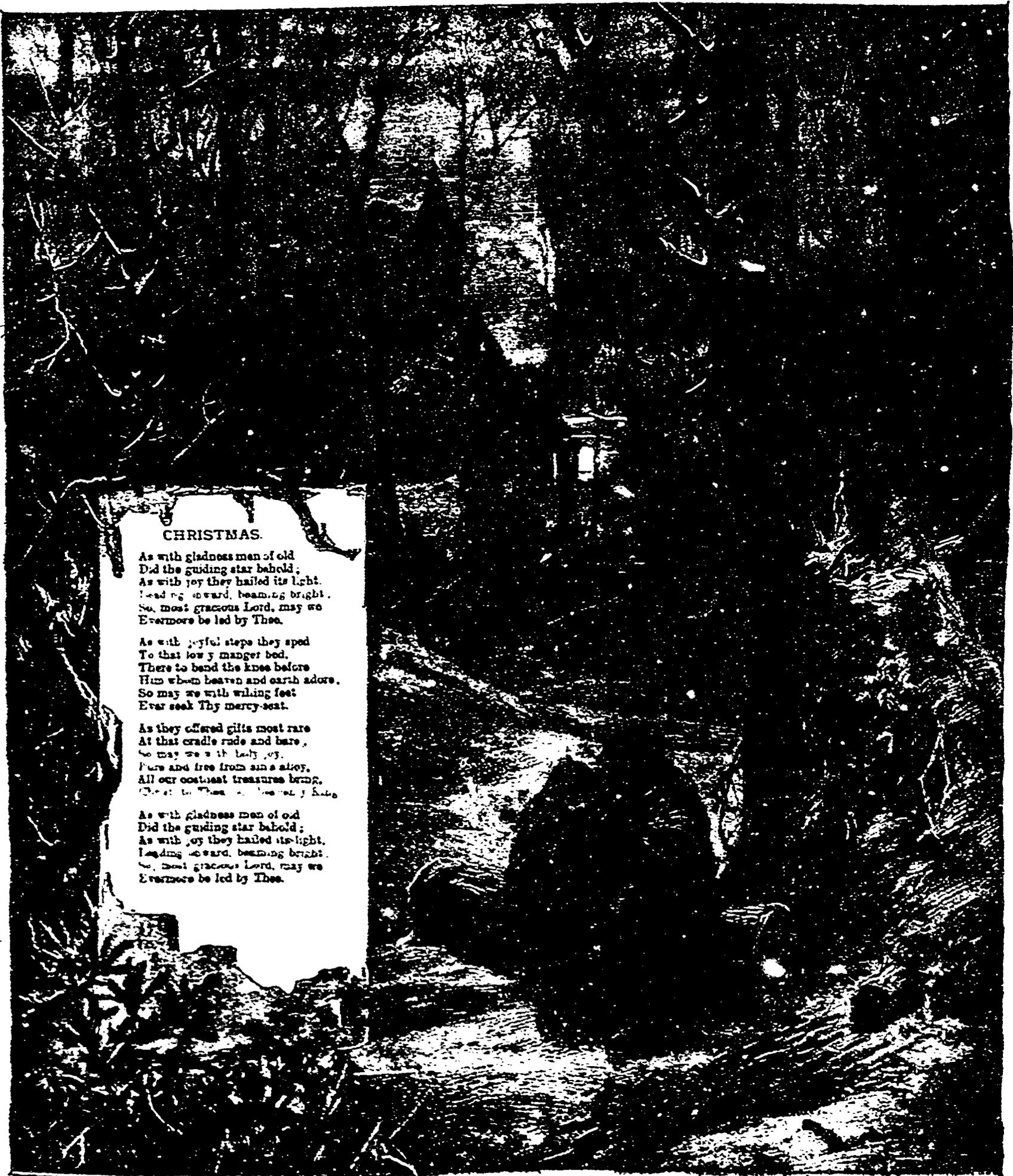
The cherry grows best in a rich, warm, sandy loam. If a mulch of leaves, straw or brush is put around them they will be very much benefited by it.

The quince should be planted in a very moist, clayey soil, but one free from stagnant water.

The peach produces fruit of a much finer quality when planted upon light, high land, with a southern exposure. It is also much more hardy and longer lived than upon a stronger soil and a more northern exposure.

Currants and gooseberries succeed best in the soil advised for the quince.

Raspberries and blackberries are more hardy if planted upon light, sandy loam; but if large berries are desired a mulch must be used in July. On more moist land mulching is not needed, but the canes are more liable to be winter-killed.



CHRISTMAS.

As with gladness men of old
 Did the guiding star behold;
 As with joy they hailed its light,
 Leading onward, beaming bright,
 So, most gracious Lord, may we
 Evermore be led by Thee.

As with joyful steps they sped
 To that low y manger bed,
 There to bend the knee before
 Him whom heaven and earth adore,
 So may we with willing feet
 Ever seek Thy mercy-seat.

As they offered gifts most rare
 At that cradle rude and bare,
 So may we with happy joy,
 Pure and free from sin's alloy,
 All our costliest treasures bring,
 Offered to Thee, O most merciful King.

As with gladness men of old
 Did the guiding star behold;
 As with joy they hailed its light,
 Leading onward, beaming bright,
 So, most gracious Lord, may we
 Evermore be led by Thee.

PETLEY & PETLEY

THE LEADING HOUSE IN CANADA FOR

DRY GOODS, CLOTHING, MILLINERY AND CARPETS.

PRICES

— OF —

Mantles.

— AT —

CHILDREN'S

MANTLES

— AT —

One Dollar, \$1.50,

Two Dollars,

\$2.50, Three Dol-

lars, \$3.50,

Four Dollars, \$4.50

Five Dollars,

and up.

— OF —

LADIES'

Mantles

— AT —

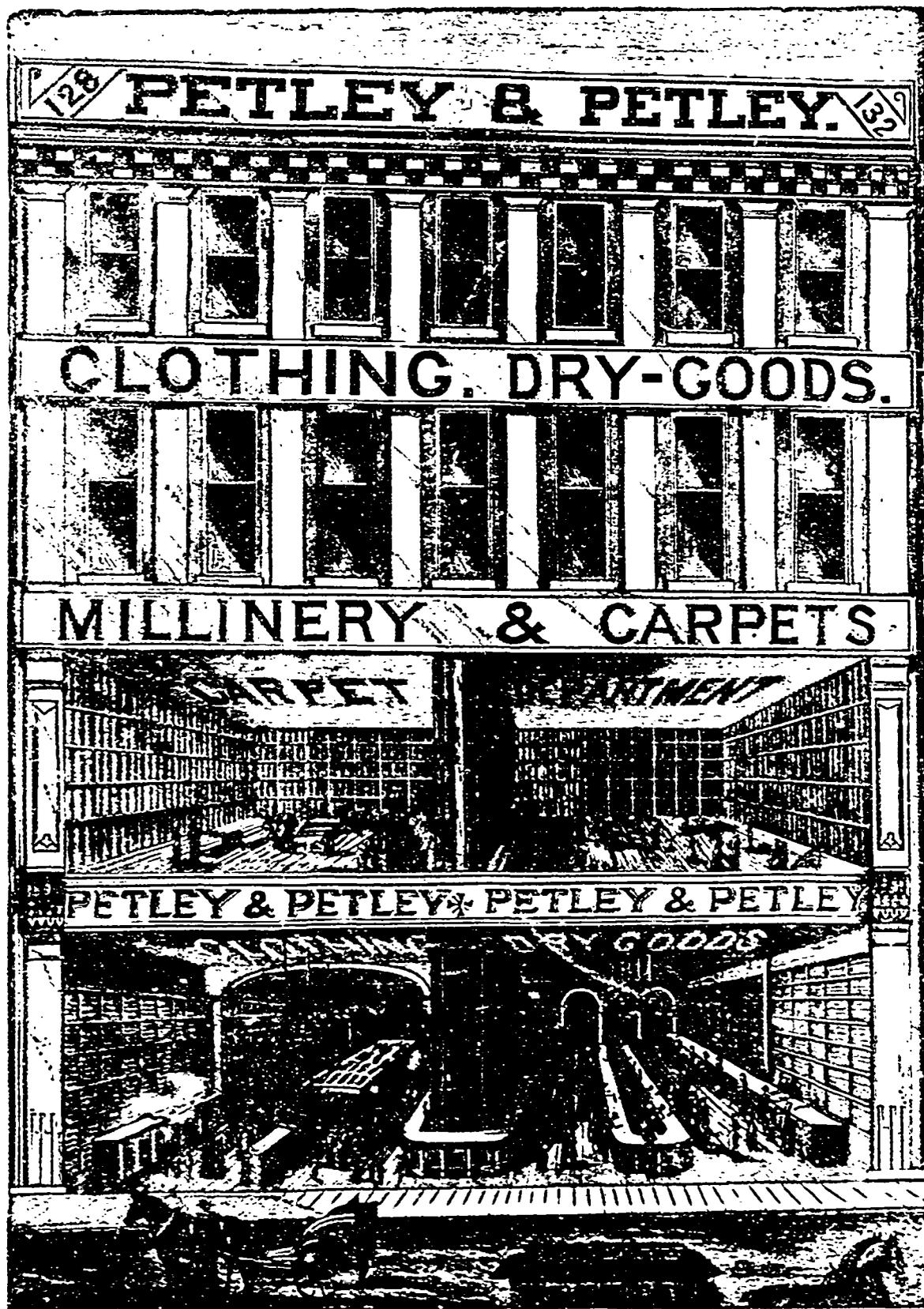
Three Dollars, \$4,

Five Dollars,

\$6, Seven Dollars

\$8, Nine Dollars,

\$10 and up.



PRICES

— OF —

Over-Coats.

BOYS'

OVERCOATS

— AT —

Two Dollars, \$2.50

Three Dollars,

\$3.50, Four Dollars

\$4.50, Five

Dollars, and up.

— OF —

MEN'S

OVERCOATS

— AT —

\$3.50, Five Dollars

\$6, Seven

Dollars and a Half,

\$10 Twelve

Dollars and up.

JUST OPENED

ANOTHER LARGE SHIPMENT OF TAPESTRY AND BRUSSELS CARPETS.

SELLING AT VERY LOW PRICES.

Tapestry Carpets, handsome patterns, at Thirty-five, Forty, Forty-five, Fifty, Fifty-five cents and up. Large, Heavy Bed Comforters only Seventy-five cents, and good All-wool White Blankets Two Dollars per pair and up. Superior Quality and Extra Heavy All Pure Wool White Blankets, Three Dollars and a Half to Seven Dollars and a Half per pair.

KING STREET EAST, - OPPOSITE THE MARKET, TORONTO.

The Rural Canadian.

TORONTO, DECEMBER, 1885.

"THE RURAL CANADIAN" AT GREATLY REDUCED RATES.

We are nearing the close of another year. Soon our subscribers will be deciding on their papers for 1886. The publisher of THE RURAL CANADIAN hopes to retain the names of all old subscribers, as well as to add thousands of new names. With this object in view, the following favourable club offers are made:

CLUBBING RATES FOR 1886.

Club of four names (75 cents each), \$8, and free copy to sender; club of ten names (60 cents each), \$6, and free copy to sender. For larger clubs special rates given on application. And if any person wishes to make a canvass of a township for THE RURAL a good commission will be allowed.

THE RURAL CANADIAN for 1886 will be greatly improved in many ways. At the suggestion of valued friends, who have said that the present page is too large for binding, the size of the page will be reduced, while the number will be considerably increased, thus insuring the usual quantity of reading matter. It is scarcely necessary to add that the various departments of the paper, which have given so much satisfaction in the past, will be maintained, and new features will be introduced.

We ask our friends to aid in extending the already large circulation of THE RURAL CANADIAN. Say a good word for the paper to your neighbours. Ask them to subscribe. Send us a club of four, and secure a free copy for yourself. We also offer book premiums, which are well worth looking at. Good books are valuable aids to the farmer; and our offer affords an easy way to make additions to the library. Try.

FENCING OUT v. FENCING IN.

The prairie people have a sensible law dealing with the care of stock on the farm. With us, in Ontario, the law is to "fence out"; with them in the West and North-West it is to "fence in." Why should a man be compelled by the law to protect his crops by a fence of regulation height against his neighbour's cattle, or sheep, or hogs, or horses? Is it not obviously the duty of every person to avoid trespass upon his neighbour's estate, and to avoid doing damage to his neighbour's property? In a civilized country government is supposed to exist for the protection of persons and property against wrong; but in this matter of the protection of crops and other property on the farm, the farmer is bound to protect himself or suffer the consequences, without any right of reparation if he fails to provide what the law pleases to define as reasonable protection against loss. We want a reform here; we want a law which will make it the duty of every farmer to "fence in" his own cattle, and not to "fence out" his neighbour's. It would prove to be a most economical reform, for under its operation we might dispense with thousands of miles of costly and unsightly snake fences. A movable fence to enclose a few acres of pasture land would serve every purpose under such a law. Then think of the advantages (1) The capital invested in fences employed productively in other ways; (2) the appearance of farms improved, (3) the area of cultivable land increased, (4) the seeding ground for weeds broken up, etc., etc. Have we a farmer member in the Ontario Legislature with pluck enough to propose a bill on this subject and to carry it through?

THE POTATO ROT.

The potato rot has turned out to be much more serious than was apparent a few weeks ago. Not only has the area been greatly extended, but the rotting process has continued far beyond the usual limits of this blight with us. When the disease first appeared after the heavy rains of August, it was confined to heavy clay lands along the margin of the lakes; but, the unfavourable weather continuing, it extended northward and eastward so as to embrace the whole region from the Detroit River to the Ottawa. The only portions of the country comparatively free from it are the counties bordering on the Georgian Bay, the districts of Muskoka and Parry Sound, and the counties to the eastward of these. The greatest extent of injury has of course occurred on the heavier soils, and to late-ripening crops. On sandy and gravelly soils some fair crops have been gathered, but the total loss is unquestionably very large and the taint is very general even where the least damage has been done. Long after the potatoes were taken up the disease continued its ravages, and it is not at all unlikely that great loss will take place in the pits and storehouses. To add to the seriousness of the situation, similar reports come from the New England States, New York, Pennsylvania, and in fact from all the northerly States as far west as Minnesota. It is almost certain, therefore, that good potatoes will fetch fancy prices until the next crop ripens.

INSURING THE CROPS.

The new crop of fall wheat has had a good show so far, and its appearance throughout the Province is full of promise. The land was in good condition at seeding time, and the temperature and rainfall since have been favourable for healthy and vigorous growth. A liberal top-dressing of manure is probably the best treatment that can be given as a preparation for winter, and if this is attended to before the first snow-fall it ought to be almost as good an investment as an insurance policy, and, by the way, why is it not practicable to apply the insurance system as a protection against loss by the failure of crops? There is insurance for the life of man and beast, and the effect of the conditions is to lengthen the span of life by the necessity for observing the terms of the policy. Prudent men know that insurance of life or property is a good business investment, and the variety and extent of assurance operations furnish the best evidence that this kind of prudence is making great headway in the world. Why, then, not insure the life of a growing crop, subject to reasonable conditions in the policy? There are, of course, practical difficulties to overcome, but these are not insurmountable. The advantages are obvious, and not the least of them would be (or at least might be) the bestowal of extra care on the crops so as not to vitiate the policy. "Too much drink" vitiates the policy on a human subject, and so as a matter of business the sensible human subject avoids "too much drink."

HOG CHOLERA.

An epidemic exists among the hogs in South Simcoe, in the neighbourhood of Bradford. Many of the farmers in that locality are killing off their swine, a little early in the season, fearing the disease will spread and they may lose them. From the description given the symptoms are those of cholera. The authorities should take timely steps in the matter, else the stamping out of the disease may give a deal of trouble.

VISIBLE SUPPLY AND MARKET PRICES.

What is meant by "visible supply," and of what value is it as an element in regulating the price of wheat? It is not the quantity of unmilled grain in the country—in the hands of millers, dealers and farmers—for if that could be ascertained from week to week it would possess some definite value. What it does mean is the quantity in elevators, warehouses, etc., collected by commercial journals or reported to produce exchanges. Now this information may serve as a good guide in the fixing of prices, or it may serve as the reverse: it depends on how accurately it enables us to calculate the total product of the harvest not yet entered into consumption; but, strange as it may appear, dealers and the public generally consider only the stock in sight, and as long as this undergoes no diminution prices refuse to rise. It is well known that the yield of this year's harvest in the United States is 150,000,000 bushels less than last year's; yet because the visible supply in the United States and Canada has been steadily growing from the 1st of July to the present time, quotations are lower now than they were then. Commenting on this curious fact *Bradstreet's* says that "foreign customers see that which is in sight only—far supplies in their own lands and enormous quantities stored in the United States awaiting shipment." If this be the real explanation of the low prices of wheat which have ruled since the gathering of the last harvest, we are amazed.

CONCERNING MUTTON.

"Yes, sir, four pence halfpenny is what they get for Australian mutton in the British markets at the present time; it pays, and they are satisfied. That is what is playing the mischief with the meat business in England and bringing down the prices of cattle, sheep, etc., in this country and the States, to say nothing of the poor English farmers. In my opinion prices will be down for the next few years." Such were the remarks of one of the oldest importers of cattle, a man who has crossed the ocean sixty-two times during the last thirty-five years. Continuing, he said: "Some of the writers in the American press say that the poorer classes in the Old Country have tired of eating fat mutton, but that's not the fact. The Australian or New Zealand mutton is of good quality. I've eaten it myself and know that it is good. So much money has been invested in this branch of trade that, pay or not pay, it is sure to be carried on for the next two or three years. Then again, our sheep men do not study the taste of the people in England, all sorts of sheep being sent across, no selection whatever made. Old ewes, indeed anything fat enough, are shipped. Consequently after the best are picked the cattle fetch but poor prices. There is still a remunerative market in England for good mutton and there always will be, for, although the Australian mutton will supply the wants of the labouring classes, there are the middle class people whose wants require supplying, and who will pay fair prices for the superior article. Then again, the consumption of mutton in our home markets is greatly on the increase. Butchers complain of the short supply and of having to go long distances, picking up a few animals here and there, whereas, only a few years back, they could be gathered together much more readily, and at about the same prices. Farmers must not be discouraged at the low prices at present being paid. Mutton will still be in demand, and will pay for the trouble of raising."

SUBSCRIBE FOR THE RURAL CANADIAN.

THE DAIRY.

HOW TO KEEP MILK.

Milk was not intended by Nature to be exposed to air, but to be conducted as directly and speedily as possible from the milk-ducts of the parent to the stomach of the offspring. As a liquid containing a good deal of the element nitrogen, it is liable to early decay, or, in other words, to changes in its chemical and mechanical condition. The temperature it has when milked from the cow is favourable to its decomposition. Above or below blood-heat its decay is more or less retarded; and, by passing a volume of oxygen through it, it is made to keep the longer. Left alone, it is a suicidal sort of thing, constantly inviting its own destruction, so to speak. It drinks in greedily foul odours from the atmosphere, and provides just the food that bacteria delight in. It is determined not to remain in its original form, for it begins to throw off its cream at once on coming to rest. To chemists it is known as a "transition compound," seeking fresh conditions and combinations. It is congenial food to the fermentive germs that float in the air, and contains within itself a principle that is an aid to digestion, which is only another word for decomposition.

Such being the case, milk requires intelligent treatment if we want it to remain as it is when we get it. Assuming that it is sweet and fresh when we first take it in hand, the first thing to do is to cool it; and for this reason, by lowering the temperature, the ferments to which it is exposed operate much slower, or do not operate at all. These ferments get hold of it best at the heat it is at when it comes from the cow. They need warmth, as most things do, for their fruition; and as we cannot get rid of them, because they float about in embryo in any place where air is, the next best thing is to deprive them of warmth.

If we boil milk, and immediately enclose it in air-tight vessel, it will remain sweet for years; but it will sour when it is re-exposed to the air at 60 deg. F. and upwards. If we freeze it, and keep it frozen, it will remain sweet as long as we like; but, when it comes to thaw, the effect of the freezing is to hasten its decomposition. This, indeed, holds good with butter and flesh and vegetables, with any perishable article, in fact. It is their mechanical combination which the freezing has interfered with, and this is an aid to chemical decay.

The effect of a strong ray of light falling on milk is to develop the fermentive organisms that lead to the decomposition of the liquid. They are of a vegetable character, and need light as well as warmth to enable them to thoroughly do their work. It is, therefore, expedient to keep milk in the shade, not necessarily in a dark room, but away from the light of a window. Butter and eggs, too, are injured, though less quickly, by a strong light; and they should not be exposed to its influence.

It is generally considered advisable that milk-rooms should be well ventilated; but the air must be as pure as we can have it; otherwise they are better without the ventilation. Whatever the air is, so will be the milk, after a time. If it is tainted with any sort of an odour, the odour of flesh, of vegetables, of mint-sauce, of paraffin, of smoke, anything, in fact, the milk will taste of it. Intelligent people who make butter are aware of this, and keep their milk in clean vessels, in a pure atmosphere, in a cool room, while the cream is rising. This is absolutely necessary in order to keep a pure-flavoured butter that will keep as long as it ought. A stuffy atmosphere in a room is abominable; ventilation with impure air is

equally so; and in either of these cases, if they are unavoidable, it is better to keep the milk corked up in a bottle, previously cooling it well, and stirring it as it cools.

It is of the first importance that milk should be put into vessels that are scrupulously clean, and they need cleaning after milk as much as after almost anything else. By putting new milk into a vessel that has been more or less soured with old milk, the new is at once introduced, so to speak, to the old leaven, that will turn it all sour very soon. Before such a vessel is employed to contain a fresh supply of milk, it should be washed in boiling water, to kill all the germs of sourness, both the lactic acid and the bacteria that it may contain, and then in cold water, to cool it. It is hardly necessary to say that the water itself must be clean; this is obvious on the face of it.

And again: The room must be cool, say not more than 60 deg., if possible, or it is not of much use to cool the milk, which will always rise or fall to the temperature of the air that surrounds it. At the same time, it is true that cooling the milk to 55 deg. or so will preserve it the longer, even in a room that is 60 deg. or upwards. Cooled milk in clean vessels, and in a cool room whose air is fresh and sweet, will keep well for a day or two. The cream, however, which is in mechanical rather than in chemical combination with the milk, will rise to the surface unless the milk is frequently stirred.—*Science News*.

IT DOES NOT PAY.

The big milk records do not pay. They certainly do not pay the public and they do not pay the owner of the cow. Their tendency is to create dissatisfaction among those who purchase stock of the breed to which the cow of exceptional record belongs. The people upon whom breeders are to depend are those who are not familiar with the character of the improved breeds. They read of a "Mercedes" or a "Princess II." and it is not to be wondered at that they are likely to think that every Holstein should come somewhere near doing what "Mercedes" did, and every Jersey what "Princess" did. But, of course they were exceptional cows, and were exceptionally fed, and the general run of cows comes nowhere near their record. That there is a disappointment from this cause, this journal is not the only one certainly that knows very well. As a source of temporary profit, this forcing is unquestionably conspicuous, but in view of what we have already said, will it pay in the long run?

It is not profitable in another direction. It kills the cow—kills the goose that lays the golden egg. No cow, no calf; and no calf, no profit. These remarkable cows soon give up the ghost. There is one thing that may be confidently looked for when we read of a cow making an astonishing butter record—her speedy death. It did not pay to kill "Mercedes." It did not pay to force "Princess II." It was within the possibilities to show their marked excellence without going to this extreme, and while the calf from such a cow, if she was not forced beyond her power of endurance, might not bring as great a price as if her record was higher, there would be more calves to sell and a larger aggregate of money.—*Ex*.

The *American Dairyman* says: Let a drop of fresh milk fall into a glass of pure water. If the milk promptly disseminates itself through the water, the cow that yielded that milk is not with calf, but if it sinks to the bottom of the glass as it falls upon the water, and does not produce but little of a milky cloud, the cow is pregnant. The specific gravity and viscosity of the albuminous milk being heavier than the water, thus retains the drop of milk and causes it to sink.

CONCERNING CHEESE.

The low price obtained for cheese in the English markets must have a very depressing effect on the cheese manufacture in Canada. The primary cause of the low figures paid is the large importation of frozen mutton from Australia and New Zealand, which is being retailed at about 9 cents per pound, consequently the "British workingman" can now sit down to his mutton-chop the same as the better class people, without being considered extravagant.

The bread-and-cheese diet has been superseded by wholesome fresh meat, the price of which places it within the reach of nearly every person, and families who used to sit down to a meagre meal of bread with a little cheese now banquet on mutton, a couple of pounds of which can be had for the price of a pound of cheese. English cheese makers are nearly ruined by the change, which adds another load to the already overburdened British farmer. As an article of diet there is nothing more nutritious than cheese, yet how little of it is to be seen on the tables of Canadian farmers, or even consumed by residents of the cities, yet here we make it and ship it to another country, disposing of it at prices that very little more than pay expenses. If cheese were used more as an article of diet in Canada it would soon become appreciated, and the home market would be vastly increased.

THERE is no cure for a cow that sucks herself except to slit the tongue for an inch and a half at the end and middle. If this is objected to the animal should be fattened and killed, which will, no doubt, be a more disagreeable remedy to both the cow and the owner than the other.

It is said that the flavour of beets, turnips, or cabbages in milk can be overcome by dissolving half a teaspoonful of saltpetre in a teacup of water and pouring it into the churn with the cream at churning time. Cabbage may be fed at night, after milking, without flavouring the milk.

In our experience in producing milk, says the *Dairy World*, we have succeeded best by using from sixteen to twenty pounds daily of a feed composed of 100 pounds bran, fifty pounds wheat meal, fifty pounds buckwheat shorts, and fifty pounds corn chopa. A ton of this mixture costs us, at present prices, \$10.75.

In France some experiments have recently been made in supplying cows with cold and warm water to test the effect on them as milk-givers. The food given was the same in both cases, but it was found that those supplied with water heated to 118 deg. F. yielded one-third more milk than those given cold water.

How milking is done in the Island of Jersey is thus described: "Tall buckets narrowed near the top, with widened mouths, are used. A linen cloth is tied over the top, then a smooth sea-shell is pushed down in the depression to receive the milk. The shell prevents the wearing of the cloth by the streams of milk. When the milking is done the straining is also completed."

O. C. Garco, Minnesota, writes: "To succeed as a dairyman you must work continuously. The second point necessary to success is warm barns, yet some men believe that an open shed is sufficient protection for brute flesh and blood, with the thermometer 20 degrees below zero. Milking twenty-four cows, I have received close to \$2,200 during the past year. I believe that with forty cows the farm will bring \$3,000 from milk and butter. I cultivate 100 acres, and cut hay outside of it. I figure that one man, one team, ten cows and forty acres of ploughed land is the proper proportion for getting the best returns from farm work."

Bees and Honey.



OFFICERS OF ONTARIO BEE-KEEPERS' ASSOCIATION, 1885-6.

President, S. T. Pettit, Belmont; 1st Vice-President, Allan Pringle, Selby; 2nd Vice-President, Mrs. R. McKechnie, Angus, Secy.-Treas. Wm. Couse, Meadowdale.
EXECUTIVE COMMITTEE—D. A. Jones, Beeton; S. Corneil, Lindsay; Jacob Sponco, Toronto; Dr. Thom, Streetsville; B. McKnight, Owen Sound.

THE ONTARIO BEE-KEEPERS' ASSOCIATION.

Quite a discussion has been going on in the *Canadian Bee Journal* respecting the future of this important organization. Obviously it is not fulfilling its mission to that extent which is desirable and practicable. A number of important suggestions have been made, which we have pleasure in quoting, and in regard to which we will venture to make a few remarks.

In the *Canadian Bee Journal* of Oct. 21, Mr. Edward Lunan said:

I will in the first place propose that we change the Ontario Bee-Keepers' Association to the Dominion of Canada Bee-Keepers' Association, or the British North America Bee-Keepers' Association. In conjunction with the head association let there be formed county organizations, or, if thought best, let two or more counties amalgamate, and let its name be that of the united counties. If there already exist two or more associations in one county let them be amalgamated under one name. By forming county organizations we would be able to reach every bee-keeper in Canada. If the bee-keepers could meet quarterly or oftener, they would find that it would be of great benefit to them in deciding upon the price of honey, and how to dispose of the same to the best advantage.

In the same periodical of Nov. 4, Mr. Allen Pringle wrote:

Our present name, the Ontario Bee-Keepers' Association, is too narrow. Let it be changed to the Canadian Bee-Keepers' Association, so as to include every Canadian bee-keeper from the Atlantic to the Pacific. I would not call it the Dominion of Canada Bee-Keepers' Association, as has been suggested; that is too cumbersome a cognomen. It is not best in these days to lumber up titles any more than contexts with unnecessary words. The word "Canadian" covers the whole ground. Local associations could be affiliated with the central organization on a judicious basis to be decided upon at annual meeting. The membership fee of the general organization ought to be reduced from \$1 to as low a sum as possible—just what would be necessary for the expenses of the organization. In the interest of the "Canadian Bee-Keepers' Association" (its growth and permanency) I do not think it would be wise to exact a large membership fee—larger than necessary—and then undertake to return a *quid pro quo* of any kind, whether a bee journal, an Italian queen, or anything else. What bonus would suit one would not suit another, and every one wants to spend his money as he sees fit. Why should bee-keepers be babies that they must have taffy offered them in the shape of discounts, queens, or anything else to induce them to join an association the advantages of which are obvious? The following single advantage of membership accruing to each and every member ought to be sufficient in itself to induce every prudent bee-keeper to join: In case of unjust legal proceedings against any member on account of alleged damage by his bees, similar to the cases now pending in the U. S., let it be understood and provided that such member shall receive the united assist-

ance of the Association in the unjust litigation forced upon him, and let it also be understood that any bee-keeper who does not think it worth while to join the Association need not expect the assistance of the Association in such an emergency, and every bee-keeper who is worth having will join the Association.

Mr. R. F. Holterman thinks it a mistake to hold the annual meeting of the Ontario Bee-Keepers' Association at the time of the Toronto Industrial, or any other great exhibition, and argues that there are too many other attractions at such times, while it is impossible to give matters of interest full discussion at two or three evening sessions. He proceeds to say (*Canadian Bee Journal*, Nov. 11):

Look at the North American Bee-Keepers' Association, the Dairymen's Association, etc., sessions morning, afternoon and night, and for days, business done largely by committees at that, and men going under such management know they run no risk but obtain plenty of information directly beneficial to the practical management of bees. Let the Ontario Bee-Keepers' Association adopt such a course of sessions after our bees are in winter quarters, of two or three days or more. We can get reduced rates no doubt. A large hotel, say in Toronto, can accommodate us all at reduced rates, and in that way we can have little conventions at meals and all night as we had at Rochester last fall. This last alone would be something we can never do under the present system, as we could not get hotel accommodation and board at reasonable rates during the exhibition weeks. This done we will strike at the root of the present unpopularity of the Ontario Bee-Keepers' Association.

Mr. Holterman urges the importance of local associations being formed and affiliated with the parent organization. He points out the benefits likely to accrue from this plan, especially in connection with marketing honey.

In the *Canadian Bee Journal* of Nov. 18, Mr. R. McKnight gives expression to the following views:

I quite agree with Mr. Pringle that an official organ is no longer needed by the Ontario Bee-Keepers' Association. The *Canadian Bee Journal* supplies all its members need, as far as a medium of communication is concerned—I would regret to see the journal become the organ of any man or set of men. I prefer to see it remain what it is: an independent bee paper—beg your pardon, *Bee Journal*—giving to its patrons value for their money and prospering on its own merits; but I do not agree with him that no inducement such as referred to should be offered to members. It is true bee-keepers should not be babies and require taffy to induce them to remain or become members of a fraternal association, the object of which is to advance their own interests; but without attending the conventions little personal benefit can result, except such as is common to all readers of the public prints; and it is a well-known fact that not a tithe of the members in former years have attended the society's meetings. Men should not be looked upon as babies because they expect or accept an inducement to identify themselves with an organization having for its object the general good of the class to which they themselves belong. Where there is no direct personal advantage an inducement such as that under consideration is one of the means very generally employed by such societies to secure and hold together their membership. Mr. Pringle will, I think, admit that the members of the Ontario Fruit-Growers' Association are in no sense of the word babies, yet they accept with a good deal of satisfaction the taffy they annually receive in the shape of trees, shrubs or flowers by right of their membership and a *quid pro quo* for the fee they pay. I believe it is frankly admitted by the officers of the Association that the full list of members could not be maintained if some such inducement were not held out. If this Association, with a much greater number of people interested in their work than the Bee-Keepers' Association can hope to have for many a day, find it expedient to offer some special inducement in

order to the maintenance of a good list of members, it is an absolute necessity on our part to do the same thing if we would save the Association from decay and death. Just what the discount, bonus, or taffy should be is a point upon which different people may be expected to hold different views. In my opinion it should be something useful to beginners and small bee-keepers, as they are largely in the majority—professionals will have already nearly everything that can be offered, and will doubtless remain members under any circumstances.

Owing to the number and length of the foregoing extracts, our comments on them must necessarily be brief. We concur in the suggestion that there should be one comprehensive organization to comprise the whole Dominion, with local bodies affiliated to it. The name "Canadian Bee-Keepers' Association" seems to be highly appropriate. It will be difficult to get a general representation from so large a constituency as the entire Dominion; therefore, we think the membership should be both representative and personal, as in the case of the North American Bee-Keepers' Association. We entirely concur in the views expressed by Mr. Holterman. The "taffy" objection raised by Mr. Pringle is well met by Mr. McKnight, and the example of the Ontario Fruit-Growers' Association in holding out some inducement to membership is to the point. The report of the Committee on Organization, given in the last issue of *THE RURAL CANADIAN*, settles for the current year what form "the discount, bonus, or taffy" is to take, so that it is not necessary to discuss that point further at present. We will only say that it will be our special aim to make this department, as Mr. McKnight expresses it, "useful to beginners and small bee-keepers, as they are largely in the majority," while we trust that these columns will not be devoid of interest even to "professionals."

It is to be hoped that there will be a further expression of opinion in regard to the best means of promoting the prosperity and usefulness of the Ontario Bee-Keepers' Association, so that the executive committee may be enabled to make such arrangements for the next annual meeting as will be generally satisfactory, and result in its proving a great and gratifying success.

THE COLONIAL AND INDIAN EXHIBITION.

That this exhibition, to be held in the course of a few months, at Kensington, near London, England, will afford a grand opportunity of showing what Canada can do in the way of honey production, is agreed on all hands. The importance of making the most of it appears from the fact that the great want of our bee-keepers is a good market for their surplus honey. It is well to cultivate the home demand, but if we are limited to that, there will soon be over-production. What would our farmers do with their wheat, beef and cheese but for the foreign market? The local sale of honey is injured by a multitude of small producers who sell at low and unremunerative prices, and the only way to correct this evil is to secure a foreign market where the demand will be steady, regular and at fair figures. It would seem that this can be accomplished by taking advantage of the forthcoming exhibition. A large display of honey from Canada, of first-class quality, and put up in attractive packages, would no doubt pave the way for a great and increasing volume of trade with Britain in this commodity. Unless this can be secured, in vain do we extend bee-keeping, for without a constant market, there will be a glut, and prices will go down—down below zero.

There seems to be some uncertainty about the parties to whom this matter was entrusted by the

Ontario Bee-Keepers' Association at the annual meeting. Our impression is that it was left to the executive committee, and if we are not mistaken, the special committee mentioned by the *Canadian Bee Journal* of Oct. 21 was the business committee, whose functions of course terminated at the close of the meeting. The executive committee is quite competent to deal with the matter; but if there really is an exhibition committee also, we second the proposal of Mr. D. N. Jones that President Pettit call a joint meeting of the two committees, that they may mature a good scheme of united action, and issue instructions to intending exhibitors. We have not yet seen an official statement of what the Dominion Government is prepared to do in aid of this enterprise, but it has been hinted that it will convey the honey free of charge, and pay the expenses of some one to take care of it.

Next in importance to getting up a really fine display of Canadian honey is the appointment of a competent person to take charge of it, see that it is conspicuously shown to the very best advantage and explain all about it to visitors. Unless this be done it will be wasted labour to send our honey, for without any one to look after it, the probability is that it will be dumped into some obscure corner. We beg to nominate Mr. R. F. Holterman as a fit and proper person to undertake this task. He is an able bee-keeper, young and active, speaks both German and English fluently, and can probably detach himself from other business engagements more easily than any one else equally competent for the duty. We understand that Mr. Holterman is willing to go if asked to do so, and from what we know of his qualifications, we are confident that it will not be easy to confide the enterprise to better hands.

THE SHEEP-BEES LAWSUIT.

Our bee-keeping confrères in the United States have been in quite a flutter of excitement over a strange lawsuit in which the plaintiff claimed \$500 damages for injury done to a flock of sheep by bees. It was contended that the bees drove the sheep from their pasture and prevented their feeding, so that they ran down in flesh, and several of the flock, like bees in some cases, failed to winter. As might have been expected, the suit was thrown out of court, the judge deciding that there was no legitimate or legal ground for action. The way is open for appeal to a higher court; but it is hardly likely, after the damper put upon him, that the plaintiff will carry the matter any further.

HONEY PRIZES AT THE HAMILTON CENTRAL FAIR.

This fair was an honourable exception to those reflected on in our last issue as ignoring bee-culture. We have pleasure in publishing the list of prizes and the winners thereof, as follows:

GENERAL DEPARTMENT.

Largest and best display of comb honey—1st, Joseph Barlow, Tyneside; 2nd, R. L. Patterson, Lynden.

Largest and best display of extracted honey—1st, Wm. McEvoy, Woodburn; 2nd, Mills Bros., Hamilton; 3rd, A. Robertson, Carlisle.

OPEN TO AMATEURS AND LADIES HAVING LESS THAN TWENTY-FIVE COLONIES.

Best ten pounds comb honey, in section—1st, Joseph Barlow, Tyneside; 2nd, R. L. Patterson, Lynden; 3rd, C. Marshall, Binbrook.

Best ten pounds extracted honey—1st, Wm. McEvoy, Woodburn; 2nd, C. Marshall, Binbrook; 3rd, Wm. McEvoy, Hamilton.

Assortment of sections filled with comb honey, different sizes and shapes of sections to be taken into consideration—1st, Joseph Barlow, Tyneside.

Best samples of beeswax, not less than five

pounds—1st, Wm. McEvoy, Woodburn, 2nd, Joseph Barlow, Tyneside; 3rd, A. Robertson, Carlisle.

LADIES' DEPARTMENT.

Best comb honey, in sections, not less than ten pounds—1st, Mrs. Joseph Barlow, Tyneside; 2nd, Mrs. C. Marshall, Binbrook; 3rd, Mrs. S. Campbell, Carlisle.

Best extracted honey, not less than five pounds—1st, Mrs. C. Marshall, Binbrook; 2nd, Mrs. S. Campbell, Carlisle; 3rd, Mrs. Jos. Barlow, Tyneside.

TO BEES IN WINTER QUARTERS.

Good-night! a long good night my bees!
I've packed you snug and warm,
So you can stand an Arctic freeze
Or Hyperborean storm.

You're two feet high above the ground,
Beyond the reach of mice;
I hope you'll winter safe and sound,
And keep your quarters nice.

I'll not come scraping with a wire,
To keep the entrance free;
You're fixed—how can you but admire?—
As in a hollow tree.

Nature's inimitable plan
Well ventilates your hive,
Better than all the schemes of man
For keeping bees alive.

The season's arduous toil well done,
Your larder full of sweet,
Enjoy the calm repose you've won,
And rest your wings and feet

If you should find the household dull
Without some babies in it,
Rear them, for you can pollen cull
Indoors, at any minute.

Take things as easy as you can,
For you are growing old,
And spend your days, like mortal man,
As a short tale that's told.

Lifetimes are measured, not by days,
But by becoming deeds;
And they deserve the highest praise,
Who leave behind them seeds

To grow, to blossom, to bear fruit,
In months and years to come;
As generations follow suit,
And raise the busy hum

Of honest industry, among
The gardens, woods, and fields;
The toil that ripples into song,
And constant sweetness yields!

—Wm. F. Clarke, in *American Bee Journal*.

BEE PERIODICALS.

Though we shall take all possible pains to make the "Bees and Honey" department of THE RURAL CANADIAN valuable to its readers, we have no idea that enterprising bee-keepers will be satisfied with two pages per month of apicultural literature, even though they are very large ones, and ever so well filled. The appetite for reading on this fascinating subject grows by what it feeds on, and we hope to do something toward making it so ravenous that it will crave larger and more frequent meals than we can possibly give out of our small larder. As the time for subscribing to newspapers and other periodicals is now close upon us, we propose to mention, with a few notes and comments, the several journals devoted to apiculture which are published on the North American continent.

Though the youngest-born of them all, the *Canadian Bee Journal* rightfully claims the first place of mention and of honour, if for no other reason than that it is published in our own country. Mr. D. A. Jones, its editor and publisher, has rendered many important services to apiculture, and it is certainly not the least that he has given Canadians a bee journal of which they have no cause to be ashamed. It is not perfect—no journal is—but it is a periodical of marked excellence, and is furnished weekly at a remarkably low figure—only \$1.00 a year. No Canadian bee-keeper can afford to be without it, however

small may be the number of hives kept. The state and progress of bee keeping in Canada can only be learned by perusing these well-filled pages. They also contain valuable contributions from leading apiarists in the United States. By all means remit a dollar to Beeton, Ont., and secure a weekly visit from this periodical during 1886.

The *American Bee Journal* is the oldest bee paper published in America, having been established in 1861. It contains valuable articles from the best apiarists in the United States, and gives items of information in regard to bee culture throughout the world. Copious reports of apicultural conventions are contained in this journal, and its readers are kept well posted as to the state of the honey market. It is indispensable to all bee-keepers who desire to be thoroughly up with the times in regard to apiculture. It is issued weekly by Thos. G. Newman & Son, 925 West Madison Street, Chicago, Ill.; subscription price, \$1 per year.

Gleanings in Bee Culture is a highly interesting semi-monthly, and fills a unique place in apicultural literature. It is chatty and spicy, making you feel that you are enjoying a pleasant re-union with a social circle of bee-keeping friends. Its editor, Mr. A. J. Root, is a many sided man, and takes a lively interest in rural pursuits of all kinds. His paper often contains articles on strawberry growing, tree planting, and various horticultural topics; also on carp culture, which is one of its editor's hobbies. Several pages of each issue are devoted to "Home Papers" on practical religion, in fact, a sermon department, managed exclusively by the editor. There is an anti tobacco column. If you use the weed and wish to quit, Mr. Root will encourage you in so doing by presenting you with a bee-smoker worth fifty cents, which you must pay for if you resume the naughty habit. Published at Medina, Ohio, at \$1 a year.

The *Bee-Keepers' Magazine* is a monthly, published by Aspinwall & Tredwell, New York, subscription price, \$1 per year. This periodical has recently come under the control of a new firm who will doubtless maintain its old-time reputation, which is that of a sensible, respectable, well conducted magazine.

The *Bee-Keepers' Guide* is also a monthly, published by A. G. Hill of Kendallville, Indiana, at 50 cents a year. It is a very practical journal, being edited by one of the most intelligent and successful bee-keepers in the United States. Mr. Hill's annual report on wintering bees is alone worth the subscription price of his paper. The fullest details are given, even to weighing the stores in the fall and spring, thus showing the exact quantity of honey consumed by each stock. This journal has a miscellaneous department, which often contains valuable articles of a scientific character on a variety of subjects.

The *American Apiculturist* is issued monthly by S. M. Locke & Co., Wenham, Mass., at \$1 a year. It began its career about three years ago, as the herald of a new era in bee-literature, and proposed to keep itself pure by avoiding entanglement with the supply business, rings, cliques, and all selfish aims; but, alas for the rarity of consistency, it soon fell into the quagmire in which its contemporaries were floundering, went into the manufacture and sale of "bee-fixin's," queen-raising, and the various lines of merchandise by which a nimble sixpence can be made out of the bee-keeping public. Its editor is a young man of some brains and much conceit, withal, an enthusiast in apiculture. We hope his brain power will increase, and his conceit "grow small by degrees and beautifully less."

There is, we believe, a bee journal published in Texas, and one or more in California, but we can give no information about them.

The Grange Record.

OFFICERS OF THE DOMINION GRANGE.

OFFICE.	NAME.	POST OFFICE.
Worthy Master	Robt. Wilkie	Blenheim, Ont.
Overseer	A. B. Black	Amherst, N. S.
Secretary	Henry Glouning	Manilla, Ont.
Treasurer	J. P. Bull	Devonport, "
Lecturer	Chas. Moffat	Edge Hill, "
Chaplain	Geo. Lethbridge	Strathburn, "
Steward	Thos. S. McLeod	Dalston, "
Ass't Steward	Wm. Brock	Adelaide, "
Gatekeeper	L. VanCamp	Bowmanville "

LADY OFFICERS.

Ceres	Mrs. G. Lethbridge	Strathburn, Ont.
Pomona	T. S. McLeod	Dalston, "
Flora	C. Moffat	Edge Hill, "
L. A. Steward	E. H. Hilborn	Usbridge, "

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Jabel Robinson	Middletown, Ont.
Robert Currie	Wingham, "

AUDITORS.

Chas. Moffat	Edge Hill, Ont.
T. S. McLeod	Dalston, "

OFFICERS OF ONTARIO PROV. GRANGE.

OFFICE.	NAME.	POST OFFICE.
Worthy Master	R. Currie	Wingham
Overseer	Thos. S. McLeod	Dalston
Secretary	A. Gifford	Manford
Lecturer	D. Kenzady	Peterboro'
Treasurer	R. Wilkie	Blenheim
Chaplain	L. Wright	Barks
Steward	Thos. Keazin	Caatown
Ass't Steward	Wm. Brock	Adelaide
Gatekeeper	J. P. Palmer	Fenelon Falls

LADY OFFICERS.

Ceres	Mrs. C. Moffat	Edge Hill
Pomona	G. Lethbridge	Strathburn
Flora	E. M. Chrysler	Dohi
L. A. Steward	J. McClure	Windsor

EXECUTIVE COMMITTEE.

Thomas S. McLeod, Esq.	Dalston
Chas. Moffat, Esq.	Edge Hill

AUDITORS.

W. H. White, Esq.	Chatham
S. Bollachay, Esq.	Palsley

A RUN THROUGH SOUTH ONTARIO.

BY OUR SPECIAL COMMISSIONER.

Early in November we boarded a C. P. R. train bound East. The cars upon this road are exceedingly comfortable, and the officials astonishingly polite and attentive. After passing Green River Station the scene which suddenly breaks into view is one of great magnificence. The track is laid along a ridge or highland, some 500 feet above the level of Lake Ontario, the water of which glitters in the rays of the dull November sun, forming a silver fringe to the beautiful picture. On alighting at Myrtle Station we proceeded to the farm of

MAJOR THOMAS HODSON.

This gentleman has about 145 acres situated on the main road from Port Perry to Whitby. The buildings are extensive and substantial. The Major has been on his farm some forty years. When he first purchased the property it was mostly bush. The soil is a rich clay loam, is almost level, with a gentle slope to the south, so that it is well drained, there being some 1,800 rods of tiles laid down. The whole of this estate is surrounded by young maple trees, which have attained a nice size. A special feature of this farm is that the barn-yard and buildings are supplied by a spring with a constant stream of water conveyed by iron pipes. Major Hodson is an enthusiast in poultry and a breeder of the Asiatic varieties, Bronze turkeys and Toulouse geese. A good supply of fresh water being indispensable to the health of poultry, the birds in this establishment have running water in their houses and are therefore in splendid condition. We next visited

DORSET FARM,

the home of Mr Herbert Spencer, well known in former years as the most prominent importer and breeder of Southdown sheep, but he has lately devoted his attention chiefly to Shropshires. His farms, for he has two, a short distance apart, consist of about 150 acres, pleasantly situated some two miles distant from the village of Brooklin. Mr. Spencer's reputation stands so high, and is so well known to most of the sheepmen all over the

American continent; that the demands upon his flocks have been very heavy. This gentleman is one of the farmers who recognize the advantages derived from underdraining. He remarked that it is rather costly and takes a deal of money, but is a good investment and will soon be productive in the increase of crops; besides the land can be worked earlier.

We next wended our way past several good farms till we reached that of

MR. JOHN DRYDEN, M.P.P.

This farm consists of 400 acres, and may safely be described as the banner farm of South Ontario. The buildings are extensive and convenient. A swift running stream of water flows through part of the farm. The fences are very substantial, the land almost level and well drained, everything being kept in apple-pie order—in fact this may be styled a model farm. Here is the home of the celebrated Cruikshank strain of Shorthorns. Mr. Dryden's herd is mainly composed of that strain of Durhams. For twenty-five years he has been a breeder of Shorthorns, and during the past few years has imported a great number. The farmers of the Dominion are greatly indebted to the enterprise of Mr. Dryden for much of the improvement in their cattle. Last year he imported some forty head, while this year he brought four bulls and four heifers from the Old Country, all Cruikshanks. He is also an extensive breeder and importer of Southdown sheep and Clydesdale horses. Of the former he has about 100 head, the breeding ewes numbering from forty to fifty. Mr. Dryden is the possessor of a grand Cruikshank bull, "Vensgarth," to which cows are sent from all parts of the country.

Our next visit was made to the farm of

MR. WILLIAM SMITH,

at Columbus, one of the best known and popular men in Ontario County. This gentleman's farm, 270 acres, is situated on both sides of the high road from Oshawa to Port Perry. The land is slightly rolling and has two live creeks running through it, eminently adapting it for stock raising. The barns and other outbuildings are splendid, the stabling very commodious and warm. Mr. Smith is widely known as a breeder of long-wooled sheep and Clydesdale horses. Recently he had the misfortune to lose the well known imported horse, "Hercules," which has left his mark in the locality, judging from the large number of young stock got by him. Mr. Smith has now one of the grandest two-year-old Clydesdales it is possible to see, and which with health bids fair to become famous. Upon this farm there is fed a goodly number of prime beef cattle, which are eagerly sought, for exportation to England.

JEFFER BROTHERS' FARM AT WHITBY

was next visited. It is situated about a mile from the business portion of the town, being within the corporation limits. These gentlemen farm about 112 acres, and although they have some nice Durham cattle, yet their attention is mainly devoted to importing and breeding Clydesdale horses, for which they have become famous, annually disposing of a considerable number. A few days ago they shipped three Clydesdale stallions to Chicago, and had on hand four imported and two Canadian bred stallions, also five imported mares and eight Shetland ponies. By the way, there is quite a number of these pretty little animals scattered throughout the country, many of the better-to-do farmers keeping them for their children to ride to school.

We next called on

MESSRS. W. HERON AND SONS,

Ashburn, near Myrtle, on the C. P. R. and Whitby and Port Perry road. Their farm is about 150 acres in extent. Messrs. Heron are great on Shorthorns, of which they have from thirty-five

to forty head; they have also some first-class Clydesdales, particularly a two-year-old stallion called "General Gordon," and are extensive breeders of Shropshire sheep. The turnip crop on this farm has been unusually good; they have stored about 8,000 bushels besides about 1,000 bushels of mangels. These gentlemen intend going pretty extensively into apple growing, having during the past spring planted an orchard of 150 trees.

The next farm visited was that of

JAMES I. DAVIDSON, BALSAM,

This is a most favourably situated farm, being on top of a high hill on the town lines of Pickering and Whitby, from which there is a magnificent view. Mr. Davidson has a splendid house, built of dressed stone, gathered on his land. The barns and other outbuildings are large and substantial. He farms about 200 acres, and is well known as an importer of Durhams, having introduced twenty-three bulls and thirty-two heifers last year and this summer thirty four head, principally of the Cruikshank strain. Cotswold sheep and Clydesdale horses are also Mr. Davidson's favourites. Of the latter he has four mares and two stallions, one of which, "Darling's Prince," bred by Mr. Davidson, is a perfect model of a draught horse.

Journeying on to Ashburn we noticed a splendid new brick house, or perhaps it would be more properly described as a mansion, together with an enormous barn, etc. On inquiry we found that it was the property of a son of Mr. J. Davidson, who had just completed the buildings, but had not moved in. The young man had followed the example set by his father and planted his home on top of a hill commanding a magnificent view.

Our next visit was to the farm of

MR. ARTHUR JOHNSTON, NEAR GREENWOOD,

distant some four miles from Claremont Station on the C. P. R. As an importer of Shorthorns, Clydesdales and other stock Mr. Johnston stands among the foremost. He has been in the business many years, and the farmers of Canada are indebted to him for introducing so many good animals into the country. Last year he imported nineteen Shorthorn bulls, and this year seventeen head of Durhams; the latter are still in quarantine at Quebec. In addition to the last mentioned he has about twelve imported cows on the farm, besides some bulls, including the well known three-year-old, "Eclipse." There are also several good Clydesdale horses, among which are "Jimmy the Laird," a dark bay, three years old, chunky, short-legged, in fact an all-round horse; a two-year-old colt, called "Toon Clerk," a perfect picture, and three very fine imported fillies.

From here we went to

MR. BIRRELL'S,

another Shorthorn expert, who has about thirty head of imported stock and five imported Clydesdales. The old homestead, occupied by Mr. Birrell, Sr., is most quaintly situated in a dense grove, the house being invisible until a person is close to it. The dwelling of the son is on the verge of the grove. In appearance both houses are like those seen in the older cities of Europe and look very picturesque. The barns, etc., are also surrounded by trees. It struck us that living among a lot of trees like that must be damp and unhealthy, but the appearance of the Messrs. Birrell contradicts that idea. The old gentleman is, we understand, upwards of eighty years of age, hale and hearty. The son was one of the first to import Cotswold sheep into this country, some eighteen years ago. It was from his importation that the best flocks in the country were formed.

JOHN MILLER AND SON, BEUGHAM.

This is one of the finest farms to be found in the Dominion. Messrs. Miller cultivate about

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450 acres, situated on a high tableland, overlooking a beautiful valley to the south-east, and commanding an extensive view of Lake Ontario, from which it is distant about nine miles. The farm buildings are very extensive, as indeed they necessarily must be to accommodate the large number of cattle and horses kept by these gentlemen. The house is a very fine one, built of stone. The surroundings give an idea of prosperity, and remind one of the well-to-do proprietary farms in England managed by those who are there styled gentlemen farmers. Mr. John Miller is one of those bluff, genial, hearty men with whom a person immediately feels at home, and you know that when he extends his hospitality he means it. Mr. Miller first came to this country about fifty years ago from Scotland, and his many visits to the Old Country enabled him to bring out many things not to be found on other farms, for instance, peacocks and hens are to be seen strutting proudly about, also some pretty English pheasants, while in the house English skylarks trill forth their beautiful melody. While at this establishment it would not take a very great stretch of imagination to fancy you had been suddenly transported to some parts of Cumberland. Building stone is here very plentiful. Mr. Miller has erected several stone fences with the material gathered from his fields. He keeps on adding to them year by year as the frost forces them out of the earth. This is a far better method of disposing of the stones than leaving them piled in the fields. It may be rather costly, but it makes an everlasting fence.

As importers of Clydesdales and Shorthorns Messrs. Miller's firm stands at the top of the tree. Their name is well known among stockmen in Canada and all parts of the United States. Their importations have been very numerous this year. They brought out seven bull calves, the pick of Mr. Cruikshank's herd, being low-legged, beefy cattle, ten yearling Clydesdale stallions, two fillies and one spring colt; also nine Shropshire sheep of superior merit. We were shown the horses. They are a grand lot and will be hard to beat. The finest of them have the makings of superior animals and one of them is certainly about as perfect a model as can be found, and with ordinary luck will make his mark wherever he goes. Want of space forbids us giving a detailed account of all the Messrs. Miller's stock; but we cannot pass unnoticed the splendid three-year-old bull, "Victor Strathallen," roan, level and short legged, a perfect beauty. Forty Shropshire ewes form the breeding flock on this farm. We were sorry to bid adieu to so many pleasant surroundings and hope again to pay them a visit in the near future.

Our next visit was to

MR. WILLIAM MAJOR, WHITEVALE,

whose farm is about a mile from the village of Whitevale, to our mind one of the prettiest villages in Canada. As the name implies it lies in a vale, and was formerly called Majorville; but Mr. White, purchasing most of the property, changed it to the name it now bears. A person driving is unaware of its presence till he gets close to Mr. William Major's place, the highest point in the locality being about 600 feet above the level of Lake Ontario. About six miles distant from here there is one of the most extensive views to be found in Canada. To the north-west the lights and spires of Toronto, and to the north-east Uxbridge can be seen. These places are about thirty miles distant, while down in the valley the village of Pickering nestles, and the town of Whitby, although thirteen miles away, seems close at hand, with the township of Darlington beyond, and Bowmanville, Newcastle and other towns in the distance forming a picture that would

delight the eye of an artist. Few of the citizens of Toronto who travel long distances in search of the beautiful are aware that such lovely scenery exists almost at their own doors. So strikingly beautiful is the locality that many wealthy persons would give fabulous prices to possess it could it be transported to another clime. Mr. Major's farm is distant from Pickering Station on the G. T. R. about four miles and about two and a half from Green River on the C. P. R. Mr. Major is another Shorthorn breeder and keeps two very fine pure-bred Bates bulls for the use of the neighbouring farmers. Although Mr. Major's buildings are not so extensive as some we met with on our trip, yet they are very compact and convenient, in fact "much in little." The stock is for the most part kept in loose boxes, Mr. Major having an objection to tying up animals that don't get much exercise. A raised gangway runs between and above the boxes, the animals are fed from above. There is the same arrangement in the sheep pens, so, except for dairy purposes, there is no occasion to disturb the stock. Mr. Major rather prides himself on his buildings being so handy, these arrangements certainly doing away with a lot of labour. As a breeder of Shropshires this gentleman's name stands high, his breeding flock numbering about thirty ewes, all first-class stock. He is a great believer in growing plenty of turnips and other roots ("W. B. C." to the contrary notwithstanding). Perhaps we may some time give his remarks, based not on theory but experience, on the advantages of growing roots. This year he has grown about 9,000 bushels of mangels and turnips from fifteen acres.

THE FARMER'S HOME IN WINTER.

A great deal can be done before winter sets in to increase the comforts of the farmer's home during the inclemencies of winter. Farmers, living in timbered sections, find winter much more severe than when a large portion of the forest still remained to break the force of the wind. Whatever the thermometer may show, every one knows, from experience, that we suffer more from cold when it is windy than when it is still. The wind changes the air around us so rapidly that the heat thrown off from the body is carried away and, consequently, the animal heat is more rapidly exhausted. Hence more care is necessary in building, to render rural homes warm and comfortable in winter.

We can remember the time when but little effort was made to provide seasoned fire-wood a year or more in advance; but many farmers were obliged to burn green wood through quite a portion of winter. This was very poor economy and the cause of a great deal of unpleasantness. We can much better afford to employ the air and sunshine to evaporate the water from our fire wood than to use a portion of the fuel to do it, besides, there is the discomfort of waiting for green wood to burn to warm ourselves, or for the housewife to cook the meal. Many farmers have found coal more agreeable and economical to use in the sitting-room than wood, even when they have plenty on the farm. It costs very nearly as much to cut and haul the wood and fit it for the stove as to buy the coal, and then fresh fuel must be supplied several times during the day with wood, while filling the reservoir of the stove, once or twice in twenty-four hours with coal, will keep the fire going.

A great deal of cold will get into the farm house around the outside doors. It will pay to buy a few matched boards and have a handy mechanic come and build a storm-house over such doors. The first cost will not be heavy and then, if carefully taken down and housed in summer,

one will last several years. A little listing, judiciously applied to shrunken doors and windows, will do much toward excluding old Boreas when in his fiercest moods. Double windows will pay in cellars and perhaps in the more exposed parts of the living room. Sometimes considerable cold air comes into the room under the base board or through cracks in the wall; papering the walls will help the latter, and some kind of calking should be crowded under the former.

Years ago farmers were much less disposed to build their houses with an eye to warmth than townsmen, clapboards and lath and plaster constituted the external protection from cold; no rough boarding, sheathing with paper or filling in with brick was practised. They may build warmer residences now; but quite a proportion of the farm houses of the land must still be without anything between clapboards and plaster. Thick building paper is a non-conductor of heat and an inexpensive method of excluding the cold. It might pay to side over many old dwellings, using such paper to increase the warmth. It is not simply a question of saving fuel, however important that may be, but one of comfort and health. In a dwelling into which our severe wintry winds can find ready entrance, colds, and diseases growing out of them, must prevail to a greater or less extent, and the damage from them cannot very well be estimated in financial terms.

We do not overlook or depreciate the importance of ventilating living and sleeping rooms; we appreciate the value of an abundant supply of pure oxygen and the necessity of expelling from our room carbonaceous and fetid exhalations from lungs and skin; but we would have the ventilation regulated by windows or other ventilators under our control. When the wind is blowing at the rate of twenty-five to forty miles an hour, and the temperature is from ten to thirty degrees below zero, the most urgent question is how to keep out the cold and maintain the proper temperature of our bodies. At such times there is not much question but that enough oxygen will find its way into our dwellings to support combustion in our stoves and in the human furnaces. We have sat in rooms where red hot stoves would nearly roast us in front, while the cold air, rushing in through spaces between the clapboards and under the baseboard, through shrunken joints or around loose windows, would keep our backs chilly. Such rooms cannot be healthful, and are certainly uncomfortable.—*American Rural Home.*

A PUZZLE WITH LETTERS.

Some time since students of the Boston Institute of Technology designed a puzzle which is quite interesting. Given two words of an equal number of letters, the problem is to change one to the other by altering one letter at a time of the first so as to make a legitimate English word, continuing the alterations until the desired result is attained. The conditions are that only one letter shall be altered to form each new word, and that none but words which can be found in English dictionaries shall be used. Here are some examples of the changes:

East to West.—East, vast, vest, west.

Dog to Cat.—Dog, dig, fig, fit, fat, cat.

Soup to Fish.—Soup, soul, soil, foil, fowl, foot, coot, cost, cast, fast, fist, fish.

Road to Rail.—Road, rood, root, coot, coat, coal, coil, toil, tail, rail.

Milk to Hash.—Milk, mile, male, mate, hate, hair, hash.

As the evenings become cooler, home amusements will be in order, and readers of THE RURAL CANADIAN are at liberty to make suggestions in that line.

HOME CIRCLE.

IN THE WHEEL-HOUSE.

"You might as well come inside here, Johnny," said the pilot of one of our large steamboats to a boy who stood shivering on the hurricane deck. The lad turned a pale, anxious face, and with a pitiful attempt at a smile, said:

"Thank you, sir, but I thought there was no admittance here."

"Oh, once in a while we let a friend in," said the pilot, kindly, and with a sweeping glance that took his companion in from top to toe and seemed to penetrate to his inmost soul.

"Where are you bound?" he continued, with a hearty brusqueness from which no offence could be taken.

"I don't know, exactly," the lad answered. "I'm going to Boston first, that is—"

"Yes, that's about what I thought," the pilot interrupted, "if you can manage to get there. Let me tell you something, my boy. A man in my position has every opportunity in the world to study character, and as quick as my eye lit upon your face I knew you were running away from home."

The only response to this was a hasty turning away of the head, and a quick, gasping sigh which sounded forlorn from one so young.

"And I wouldn't be afraid to wager this steam boat that you have got a mother living, and, more than that, as kind and loving a mother as ever drew breath. You wonder how I know all this," the man continued, his eyes fixed on the waste of water before him, and his steady hands guiding the great craft with perfect ease and precision; "but you carry your mother about in your face, my lad, and your eyes are a bad give-away," he added, with a smile. "Now I am going to tell you a story. You are about sixteen, I take it? Yes, I thought so. Well, I was a year older when I concluded I knew more than my mother and all the rest of my relations, and skipped, just as you have. You feel that you have been the victim of injustice, and all the right in the universe is on your side. That was my case, but I was a fool, and so are you. There is no necessity of entering into particulars; but I was jealous of my older brothers and made myself believe that they were in collusion to keep me out of money that honestly belonged to me. I wanted some of the property that was eventually coming to me to travel with. I was wild to see the world, and the ridicule of my brothers and my mother's apparent sympathy with them made me desperate. Well, one rumpus followed another, my mother all the time trying to show me how unjust and ridiculous my demands were, until one day I threw all affection and decency to the winds and ran away.

"Now the point that I particularly want to make in this yarn, my lad, and which I would give a good many dollars to impress upon others, is that any fellow with a grain of honest love for his mother in his heart is pretty sure to have something to regret as long as he lives if he hurts that mother by doing what you and I have. In a moment of anger we say to ourselves, no one cares for us and we care for nobody, and then some awful trouble comes along, and we find too late that we have only deceived ourselves. Now I tramped up and down the earth for six months without sending a line home, or hearing a word from home, and at last there came a day when sickness from exposure and labour beyond my years and my strength drove me back; but not to stay or make myself known to any one, but to take—or, I should rather say, steal—some money, or some valuables which I could convert into money, to bridge over the present emergency. You had no idea that you were talking with a man

that had been tempted like that, eh? Well, I said to myself that I was simply taking a small share of what was mine by right. There were \$10,000 held in trust for me, and it was a great pity if I could not have enough of it to purchase food and medicine. I will do myself the credit to say that there did not appear to be any holes in that argument then, and that in every other respect I was an honest lad.

"It required no skill to let myself into my mother's house. To slip the catch from one of the back parlour windows was the work of a moment. My mother always kept her money in a desk in the sitting-room, adjoining her bedroom. I had written a note to leave there, telling her my reasons for appropriating the money. Good heavens! It makes my blood run cold as my thought goes back to the horrors of that night. As I softly raised the window and crept into the room I was struck, it seemed to me, with the chill of death. I had no fear of being caught—I knew the house too well for that—and I was never in my life very much afraid of anything or anybody. It was a chill that seemed to strike clear through me, causing my teeth to chatter and my heart to feel like a lump of ice in my bosom. These were novel sensations, and I tried to analyze them, but it was of no use. I found that I literally did not dare to move hand or foot in this awful blackness. I knew where the matches were formerly kept, and could have reached them by a couple of steps, but how to take those steps was the question. At last, by a supreme effort of the will, I groped my way to the mantelpiece. There were two matches in the box. I struck one, and my hand shook so that I was afraid it would go out before I could look about me; but it lasted long enough, my lad, to show me a sight which nearly killed me on the spot. Just in front of me, by the folding-doors, was a coffin, and I knew then that it was the presence of death in the room that had sent such a chill through every fibre of my being. At this crisis, my boy, I realized the criminality of my conduct to the fullest extent. In some form or other it always comes home to everybody but the most hardened and depraved, and it is my opinion that somewhere, some time, even these are brought to an understanding of the tortures they have inflicted upon others.

"I must look and see what face was shut away from sight in this narrow bed, but how could I? They tell us that in great crises people sometimes have a quick and awful glimpse of all they have done in their lives. I seemed to remember everything my mother had ever said to me, all her kisses, her tears, the prayers I had said at her knee, all my own heartlessness, every mean and cruel word I had ever spoken, every single act of disobedience. I had come to-night to rob her, and had found her in her coffin. But perhaps it might not be. It was not impossible that some one else in the house could have died, I told myself. But no! Some agonizing intuition seemed to tell me that it was my mother, and I had killed her. God forbid, my lad, that I should not be able to do some good with this terrible experience! I have faced some dangers since, been in some tight places, but there is nothing seen or unseen that would ever be to me what it was to strike that one remaining match and open that coffin lid. With a desperation which no pen or tongue can describe, I forced myself toward the folding-doors, and then, after a pause in which the beating of the heart sounded in my ears like the roar of artillery, I ignited the match and raised the lid, but the little blaze only flashed out for a second, leaving me in total darkness again. Then the lid fell from my hand with a sharp click, and a moment afterward my eldest brother and a friend rushed in and discovered me.

"Mother?" I gasped, pointing in my unutterable agony to the coffin.

"Alive and well," was the joyful answer; and that was the last I knew for several days.

"The poor lifeless body that had shown me where I stood in reference to my mother, as well as in the category of crime, was that of a distant relative who had fallen ill and died at our house.

"I made a clean breast to my mother and she forgave me, and loved me and petted me as only mothers know how to do. And now, my boy, I want to ask you to go home with me to-morrow and see my mother, the loveliest old lady on the continent, and let me telegraph to your mother in the morning, and then you can go back with me on the next trip. What do you say?"

"I'll do it, sir, and may God bless you for your kindness!" the boy answered, wiping away for the first time the tears that rolled down his face like rain during the telling of this true and tragic story.

AVOID JERICHO.

So you have got yourself into trouble, my son! Gone a little wrong, have you? Yes; well, that means, you know, that you have gone clear wrong, because there is only one kind of right and one kind of wrong; there is no mugwumpery in morals, my boy. And you've had such a hard time getting back, that it's made you a little bitter and cynical, and you think all the world is rather hard, and selfish and pitiless, and especially severe on you? Well, I wouldn't feel that way at all if I were you. I don't think I ever did feel that way, and I know more about it than you do. I've been further down on the Jericho road than you. Went down there to let my beard grow. Great town for toots, from way back. It's a bad country. Never heard of but one good woman in Jericho, and she didn't move in good society.

But, my son, it isn't society's fault that you got into trouble. You knew what the Jericho road was before you went down that way. You knew there was a curse on the town. You were safe enough in Jerusalem. Why didn't you stay there? Don't feel bitterly toward all the world because you fell among thieves and got cleaned out. It is a kind, good-natured, forgiving old world, if you give it a chance to be forgiving. True, it doesn't always look that way to a fellow in trouble, because then the fellow is apt to look at the wrong people.

You found on the Jericho road, say six or eight thieves—that is, half a dozen professionals, and the two amateurs who passed by on the other side—and only one good Samaritan, and naturally it seems to you that the heaven of good is utterly lost in that great mass of rascality and hypocrisy; but, bless you, my son, in the great, honest, living world that is trying to do right, and trying to lead men to better things than Jericho excursions, in the only world that really loves and cares for just such young fellows as you, in the real world of men and women who deal with the young man all the more gently when his smarting wounds are deepest, the one good Samaritan outweighs a regiment of those villains who beat you, and robbed you, and passed you by on the road to Jericho.

Never mind the priest and the Levite, my son. They were going down to Jericho, too, you remember; that's the kind of priests they were. And one closing word, my son. Unless you are stronger and smarter than the thieves down Jericho way—and I guess maybe you are not, very few men are—why, you keep off that road. You stay in Jerusalem, and you'll have more money and less headache.—*Burdette, in Brooklyn Eagle.*

EYES THAT STOLE MY HEART AWAY.

Arranged by W.

Words and Music by John T. Rutledge.

1. There's a maid . . . - en sweet and fair..... With a wealth..... of beauty rare..... Pure and gen - tle as the
 2. In the val . . . - ley by the stream..... Lives this an - - - gel of my dream..... And of all the flow'r's so
 3. She from an . . . - gel land was lent..... She for sum - - - mer's sun was sent..... Keeping all from pain and

rose,..... How I love her, how I love her, no one knows. Lips like sun - set's crim - son flush..... Checks that shame the ro - ses'
 fair,..... She herself, yes, she herself the fairest there; And if fair - ies you have seen;..... You may know she was their
 care,..... Like the happy, like the happy bird of air, We will meet to - night a - gain,..... 'Mid the ro - ses down the

blush,..... She has eyes..... so sweet and gay,..... She has stol'n, yes, stol'n my heart, my heart a - - - way..
 queen,..... Sent on earth..... a - while to stay,..... yes, that stole, sweet eyes that stole my heart a - - - way..
 lane,..... There'll be..... words of love to hear If you choose o in - ger, choose to lin - ger - - - near..

CHORUS.

Eyes that stole..... my heart a - way,..... Eyes that haunt..... one night and day,..... Fair - est

Sopr'o and Alto. Sweet eyes that stole my heart a - way, Sweet eyes that haunt both night and day,

Tenor and Bass.

lit - tle flow'r of May,..... Eyes that stole..... my heart a - way.....

The best of all, sweet flow'r of May, Sweet eyes that stole my heart a - way.

YOUNG CANADA.

LITTLE BARBARA'S HYMN.

A mother stood by her spinning wheel,
Winding the yarn on an ancient reel;
As she counted the thread in the twilight dim,
She murmured the words of a quaint old hymn:
"Whether we sleep, or whether we wake,
We are His who gave His life for our sake."

Little Barbara, watching the spinning-wheel,
And keeping time with her too and heel
To the hum of the thread and her mother's song,
Sang in her own sweet words ere long—
"Whether we sleep, or whether we wake,
We are His who gave His life for our sake."

That night in her dream as she sleeping lay,
Over and over again the scenes of the day
Came back, till she seemed to hear again
The hum of the thread and the quaint old strain,
"Whether we sleep, or whether we wake,
We are His who gave His life for our sake."

Next morning, with bounding heart and feet,
Little Barbara walked in the crowded street;
And up to her lips as she passed along
Rose the tender words of her mother's song—
"Whether we sleep, or whether we wake,
We are His who gave His life for our sake."

A wanderer sat on a wayside stone,
Weary and sighing, sick and lone;
But he raised his head with a look of cheer
As the gentle tones fell on his ear—
"Whether we sleep, or whether we wake,
We are His who gave His life for our sake."

STARTING A DOG TRAIN IN THE NORTH-WEST.

Next summer one may travel across the Canadian continent from ocean to ocean with all the comfort and speed that a well-equipped railway can supply. What a contrast this is to the mode of travel which has existed in the Hudson Bay Territories in the North-West from the time that the first adventurous hunters and trappers set out on their hazardous expeditions. The dog-train of the past is very different from the railway train of the present; but it was very useful in its day and was often a pleasant means of travel. Besides, dog-trains did not collide, nor go over embankments, and they ran no risk of boiler explosions. Nevertheless there were drawbacks, as the following engraving shows. One of the dogs appears to be very unwilling to get into harness.

HER OWN FAULT.

"It is all her own fault. Let her put it out."
The girls were on the way to the play-ground, and a happy group they were. Each one had some plan to talk about to her own chosen friend

"Do see the old cross-patch!" said Jane Elliott. "I would not have such a temper for the world."

"Do not point your finger at her," said Mary Armstrong, who was always considerate and kind. But sweet Eva Perry could not enjoy herself when any one was in trouble without at least trying to impart comfort.

"I mean to speak to her," she said, hanging back as Ida Lewis tried to hurry her away. "I mean to ask her to come with us."

Then Ida put her hand on Eva's arm and said: "It is all her own fault. Let her put it out." Eva refused to yield to Ida, dearly as she loved her.

"It makes it all the worse for her that it is her own fault," she said. "It must be dreadful always to be so cross and unhappy. I pity her."

"I do not pity her one bit," said Ida. "She might have a good time if she would. And I do not want her to come with us, either. The very sight of her face spoils all our fun."

"But if we are kind to her and love her very much, perhaps she may not be so cross," said Eva.

"If she would only smile and be good I think her face would be nice to look at. Do not you?"



SLEIGHING IN THE NORTH-WEST.

Toiling all day in a crowded room,
A worker stood at her noisy loom,
A voice came up through the ceaseless din,
These words at the window floated in:
"Whether we sleep, or whether we wake,
We are His who gave His life for our sake."

A mourner sat by her loved one's bier,
The sun seemed darkened, the world was drear;
But her sobs were stilled and her cheek grew dry,
As she listened to Barbara passing by.
"Whether we sleep, or whether we wake,
We are His who gave His life for our sake."

A sufferer lay on his bed of pain,
With burning brow and throbbing brain;
The notes of the child were heard once more
As she chanted low at his open door—
"Whether we sleep, or whether we wake,
We are His who gave His life for our sake."

Once and again, as the day passed by,
And the shades of the evening-time drew nigh,
Like the voice of a friend or the carol of birds
Came back to his thoughts these welcome words
"Whether we sleep, or whether we wake,
We are His who gave His life for our sake."

Alike in all hearts as the years went on,
The infant's voice rose up anon,
In the grateful words that cheered their way,
Of the hymn little Barbara sang that day—
"Whether we sleep, or whether we wake,
We are His who gave His life for our sake."

Perhaps when the labour of life is done,
And they lay down their burden: one by one,
Forgetting forever those days of pain,
They will take up together the sweet refrain—
"Whether we sleep, or whether we wake,
We are His who gave His life for our sake."

as she hurried down the stairs. All were bright and animated except one girl who passed along a little apart from the rest, and looked at them all with a sullen, discontented air.

The girl's name was Effie Lee. She had a jealous, suspicious temper, and although she was in very comfortable circumstances this scowl was too often to be seen on her otherwise pretty face. At home she was well cared for and kindly treated, but she was never satisfied because she fancied that she was not quite so much indulged as her younger brother and sister were. At school she was always on the watch for some slight either from the teachers or her companions.

On this day Effie had lost her place in the class, and although she could not deny that she had missed her lesson she was angry. She accused Martha Gay of cheating, and the teacher of partiality because she had allowed Martha to go above her. She had been one of the first to leave the room when the bell rang, but lingered on the stairs and allowed the other girls to pass her without speaking.

"How hateful she is!" said Martha, as she glanced back at her.

"Never mind her," said Martha's friend; "she is not worth minding."

A loving heart is always prompting Eva to kind actions. A jealous temper carries its own punishment with it.

HEROISM AT HOME.

How useless our lives seem to us sometimes! How we long for an opportunity to perform some great action! We become tired of the routine of home life, and imagine we would be far happier in other scenes.

We think of life's great battle-field, and wish to be heroes. We think of the good we might do if our lot had been cast in other scenes. We forget that the world bestows no such titles as noble as father, mother, sister, or brother. In the sacred precincts of home we have many chances of heroism. The daily acts of self-denial for the good of a loved one, the gentle word of soothing for another's trouble, the care for the sick, may all seem as nothing; yet who can tell the good they may accomplish? Our slightest word may have an influence over another for good or evil. We are daily sowing the seed which will bring forth some sort of harvest. Well will it be for us if the harvest will be one we will be proud to garner. If some one in that dear home circle can look back in after years and, as he tenderly utters our name, say: "Her words and example prepared me for a life of usefulness; to her I owe my present happiness," we may well say "I have not lived in vain."

Miscellaneous.

THE man who robs a clothes line is not necessarily a laundryman, but he generally takes in washing. Yes, and he is likely to be ironed if he is caught.

A SURE INDICATION.—Whenever there are festering sores, blotches, pimples and boils appearing, it indicates an extremely bad condition of the blood, which should be speedily cleansed by that best of all medicines Burdock Blood Bitters.

WHAT in the Old Version was called "leaving" in the New Version is termed "lying, or falsehood." The real estate agents have brought this on themselves.

A SAD CASE.—The poor victim of Chronic Dyspepsia apparently suffers all the ills of life, living in continual torture. Regulate the Liver and the Bowels and tone the Stomach with Burdock Blood Bitters and the dyspeptic's trouble is soon gone.

PHRENOLOGIST: "Your bump of imagination is abnormally large, sir. You should write poetry." Citizen: "I do write poetry. Only yesterday I took a poem to an editor; and that bump you are feeling is where he hit me. Don't bear on it so hard."

A CERTAIN RESULT.—In all disturbed action of the Stomach, the Bowels, the Liver or the Kidneys the result of taking Burdock Blood Bitters is certain to afford prompt benefit to the sufferer. Burdock Blood Bitters cure when other remedies fail.

A YOUNG man sent fifty cents to a New York advertiser, to learn how to make money fast, and was advised in reply to glue a five dollar greenback to the bottom of his trunk.

FATAL ATTACKS.—Among the most prevalent, fatal and sudden attacks of diseases, are those incident to the Summer and Fall, such as Cholera Morbus, Bilious Colic, Diarrhoea, Dysentery, etc., that often prove fatal in a few hours. That ever reliable remedy, Dr. Fowler's Extract of Wild Strawberry, should be at hand, for use in emergency.

STABLE-KEEPER: "By-the-way, shall I put in my extra buffalo?" English Stranger: "Couldn't you let me have an 'orse, you know? Er-er rather not drive a buffalo first time, you know."

A SPEEDY CURE.—As a speedy cure for Dysentery, Cholera Morbus, Diarrhoea, Colic, Cramps, Sick Stomach, Canker of the Stomach and Bowels, and all forms of Summer Complaints, there is no remedy more reliable than Dr. Fowler's Extract of Wild Strawberry. Dealers who sell it and those who buy it are on mutual grounds in confidence of its merits.

COUNTRY girl (addressing a robust tramp): "Why don't you go to work?" Tramp (looking hungrily around): "I would if I had the tools." Country girl: "What sort of tools?" Tramp: "Knife and fork."

"Yes," said a lady, when interviewed on the subject of servant girls, "I find that the Swedes make the most capable and trustworthy servants. I never had a Swedeborgian that did not give perfect satisfaction."

HIGHEST PRAISE.—The well-known drug firm of N. C. Polson & Co., of Kingston, writes that Dr. Fowler's Extract of Wild Strawberry has long been considered the best remedy for Summer complaints in the market, and adds that their customers speak in the highest terms of its merits. Wild Strawberry is the best known remedy for Cholera Morbus, Dysentery and all Bowel Complaints.

"WHAT do they do when they install a minister?" inquired a small boy. "Do they put him in a stall and feed him?" "Not a bit," said his father; "they harness him to the church and expect him to draw it alone."

PROFESSOR (looking at his watch): "As we have a few more minutes, I shall be glad to answer any question that anyone may wish to ask." Student: "What time is it, please?"

A LITTLE Scotch boy, on his being rescued by a bystander from the dock into which he had fallen, expressed great gratitude, saying: "I'm so glad you got me out. What a lickin' I had have frae my muther if I had been drowned."

A GRAND juror, having applied to the judge to be excused from serving on account of his deafness, the judge said: "Could you not hear my charge to the jury, sir?" "Yes; I heard your honour's charge," said the juror; "but I couldn't make any sense of it." He was "excused."

NATIONAL KILLERS are the favorite purgative and anti-bilious medicine; they are mild and thorough.

Home Items and Topics.

"All your own fault. If you remain stork when you can Get hop bitters that never—Fail.

—The weakest woman, smallest child, and sickest invalid can use hop bitters with safety and great good.

—Old men tottering around from Rheumatism, kidney trouble or any weakness will be made almost new by using hop bitters.

My wife and daughter were made healthy by the use of hop bitters and I recommend them to my people — Methodist Clergyman.

Ask any good doctor if hop Bitters are not the best family medicine On earth!!!

—Malarial fever, Ague and Biliousness, will leave every neighborhood as soon as hop bitters arrive.

—My mother drove the paralysis and neuralgia all out of her system with hop bitters.—Ed. Oswego Sun.

Keep the kidneys healthy with hop bitters and you need not fear sickness."

—The vigor of youth for the aged and infirm in hop bitters!!!

At the change of life nothing equals Hop Bitters to allay all troubles incident Thereto.

—The best periodical for ladies to take monthly, and from which they will receive the greatest benefit is hop bitters."

Thousands die annually from some form of Kidney disease that might have been prevented by a timely use of hop bitters.

—Indigestion, weak stomach, irregularities of the bowels, cannot exist when hop bitters are used.

A timely use of hop Bitters will keep a whole family In robust health a year at a little cost.

—To produce real genuine sleep and child-like repose all night, take a little hop bitters on retiring.

None genuine without a bunch of green hops on the white label. Shun all the vile, poisonous stuff with "Hop" or "Hops" in their name.

CONSUMPTION CURED.

An old physician, retired from practice, having had placed in his hands by an East India missionary the formula of a simple vegetable remedy for the speedy and permanent cure of Consumption, Bronchitis, Catarrh, Asthma and all Throat and Lung Affections, also a positive and radical cure for Nervous Debility and all Nervous Complaints, after having tested its wonderful curative powers in thousands of cases, has felt it his duty to make it known to his suffering fellow-men. Motivated by this motive and a desire to relieve human suffering, I will send free of charge, to all who desire it, this recipe, in German, French or English, with full directions for preparing and using. Sent by mail by addressing with stamp, naming this paper, W. A. NORRIS, 149 Fowl Block, Rochester, N. Y.

HALL'S VEGETABLE SICILIAN

Hair Renewer.

Seldom does a popular remedy win such a strong hold upon the public confidence as has HALL'S HAIR RENEWER. The cases in which it has accomplished a complete restoration of color to the hair, and vigorous health to the scalp, are innumerable.

Old people like it for its wonderful power to restore to their whitening locks their original color and beauty. Middle-aged people like it because it prevents them from getting bald, keeps dandruff away, and makes the hair grow thick and strong. Young ladies like it as a dressing because it gives the hair a beautiful glossy lustre, and enables them to dress it in whatever form they wish. Thus it is the favorite of all, and it has become so simply because it disappoints no one.

BUCKINGHAM'S DYE

FOR THE WHISKERS

Has become one of the most important popular toilet articles for gentlemen's use. When the beard is gray or naturally of an undesirable shade, BUCKINGHAM'S DYE is the remedy.

PREPARED BY

R. P. Hall & Co., Nashua, N.H.

Sold by all Druggists.

WORMS often destroy children, but FREEMAN'S Worm Powder destroy WORMS and expel them from the system.

Celebrated Piano.

[FROM THE NEW YORK SUN.]

For nearly fifty years, the Pianos made by Wm. Knabe & Co. of Baltimore, and 112 Fifth Avenue, New York, have been before the public. Their fame for singing quality of tone, ease of action, durability and workmanship was long ago established. The most thorough and conscientious attention is paid by the firm to every detail. In the construction of their Pianos the best Rosewood, English Oak, Mahogany and Ebony are used. The sweetness of the scale is marvellous and the upper tones especially are as clear and sparkling as a bell. Knabe & Co.'s Pianos are used at Dr. Damrosch's concerts. The firm established an agency in Mexico not long ago, and orders are already pouring in.

BUY A POSTAL CARD and send for a copy of the

NORTHERN Business College Journal.

It is handsomely illustrated and intensely interesting. Every FARMER'S son and daughter should see it.

Address, C. A. FLEMING, Principal, Owen Sound.

Nervous Debilitated Men

You are allowed a free trial of thirty days of the use of Dr. Dye's Celebrated Voltaic Belt with Electric Suspensory Appliances, for the speedy relief and permanent cure of Nervous Debility, loss of Vitality and Manhood, and all kindred troubles. Also, for many other diseases. Complete restoration to health, vigour and manhood guaranteed. No risk is incurred. Illustrated pamphlet, with full information, terms, etc., mailed free by addressing Voltaic Belt Co., Marshall, Mich.

A BIG OFFER. To introduce them, we will GIVE AWAY 1,000 Self-operating Washing Machines. If you want one send us your Name, Post Office, and Express Office Address at once.

THE NATIONAL Co., 23 Dey Street, N. Y.

A PRIZE. Send six cents for postage and receive free a costly lot of goods which will help all, either sex to more money right away than anything else in this world. For quick and sure success, absolutely sure. Terms mailed free. TRUE & Co., Augusta, Maine.

HUMPHREYS' HOMEOPATHIC VETERINARY SPECIFICS

FOR THE CURE OF ALL DISEASES OF Horses, Cattle, Sheep, Dogs, Hogs, Poultry For 29 years HUMPHREYS' Veterinary Specifics have been used by Farmers, Stock-breeders, Horse R. R., Hippodromes, Menageries, and others with perfect success.

LIST OF SPECIFICS.

- A. A. Cures Fevers & Inflammation, Milk Fever, Spinal Meningitis, Hog Cholera, 75c.
 - B. B. Strains, Lameness, Rheumatism, 75c.
 - C. C. Cures Distemper, Nasal Discharges, 75c.
 - D. D. Cures Cuts or Grubs, Worms, 75c.
 - E. E. Cures Cough, Hoarseness, Pneumonia, 75c.
 - F. F. Cures Colic or Gripes, Bellsache, 75c.
 - G. G. Herds Milk-scourge, 75c.
 - H. H. Cures all Urinary Diseases, 75c.
 - I. I. Cures Eruptive Diseases, Mange, 75c.
 - J. J. Cures all Diseases of Digestion, 75c.
- Veterinary Case, Black Walnut with Veterinary Manual, (30 pages) 10 bottles Medicine and Moderator, \$8.00
- These Veterinary Cases are sent free of express on receipt of the price, or any order for Veterinary Medicine to the amount of \$5.00 or more.
- Humphreys' Veterinary Manual (30 pages) sent free by mail on receipt of price, 60 cents.
- Pamphlets sent free on application.
- HUMPHREYS' Homeopathic Med. Co., 210 Fulton Street, New York.

THE NOVELTY Rug Machine

Makes Rugs, Tidies, Hoods, Mittens, Door Mats, etc., With ease and rapidly. Price only \$1. Single machines, with full directions, sent by mail on receipt of price. Agents wanted. Apply for circulars to R. W. Ross, P.O. Box 541, Sole Manufacturer, Guelph, Ont. also dealer in Rug Patterns.

Scientific and Useful.

PEAR MARMALADE—Skin the pears and boil till very tender; weigh them; take half their weight in sugar, put in a saucepan with a little water and boil it, skimming it well; boil till a thick syrup is made; add the pulp of the pears and little essence of cloves. It is very nice for filling tartlets.

Burdock Blood Bitters is the most natural and agreeable laxative and regulating tonic for Constipation of the Bowels, and never fails to be beneficial.

Mrs. J. Fraser, of Pickering, was cured of general debility by Burdock Blood Bitters. She speaks of it in words of greatest praise for what it did for her case.

BREAD PANCAKES.—Take stale bread and soak over night in sour milk; in the morning rub through a colander, and to one quart add the yolks of two eggs, one teaspoonful of salt, one teaspoon of soda, two tablespoons of sugar and flour enough to make a batter a little thicker than for buckwheat cakes; add last the well-beaten whites of the eggs and bake.

BEEF CAKES.—Chop some beef that is rare, with a little fat bacon or ham, season with pepper, salt and a little onion, mix well and form into small cakes. Fry them a light brown and serve with a good gravy made of soup stock, thickened with brown flour.

"My customers say that Burdock Blood Bitters is the best blood purifier in the market," thus writes Wm. Lock, of McDonald's Corners, Ont.

Burdock Blood Bitters regulates the secretions, gives strength to the debilitated, eradicates all humors of the blood and give excellent satisfaction to all.

WASHING WOOLLENS.—To wash wool len goods so that they will not shrink, put three or four pails of cold, soft water in the washtub; then take two tablespoonfuls of borax and one half pint of soft soap, dissolve in about one quart of hot water; when thoroughly dissolved stir into the tub of water. Put in goods and let stand an hour or two before washing. Rinse in cold rain water. Bright colours should stand but a short time.

"I have never sold a remedy that has given such entire satisfaction as Burdock Blood Bitters; I sell more of it than of any other dollar preparation," says J. E. McGarvin, druggist, Acton.

If the stomach becomes weak and fails to perform its digestive functions, Dyspepsia, with its long train of distressing symptoms, will follow. Cure it with Burdock Blood Bitters.

APPLE MARMALADE.—Take nice, sound russet apples, pare and core them; cut in small pieces, and to every pound of fruit add one pound of sugar; put the sugar to boil with enough water to dissolve it in a preserving kettle; add one large lemon to every four pounds of fruit; boil all this together until the syrup gets thick, then add the apples and boil until it looks clear. This is very nice made half quince and half apple.

"I have used Burdock Blood Bitters for attacks of bilious headache, and it always gives immediate relief," says J. White, flour and feed merchant, Riverside, Toronto.

Broken down conditions of the system that require a prompt and permanent tonic to build up the blood and restore failing vitality will be benefited at once by Burdock Blood Bitters.

TOMATO SOUP.—One dozen ripe tomatoes, about one quart of weak soup stock. If the stock is strong use less, adding water to make the required amount. Boil about one hour together with one onion cut up. Just before taking up rub two heaping tablespoonfuls of flour smoothly into a little water, and stir carefully into the soup; allow it to boil until it thickens. Strain all through a wire sieve; season with a tablespoonful of butter, a little salt and red pepper. Slice a lemon very thin, put it into the bottom of the tureen and pour the soup over it. Serve at once.

CATARRH.—It is an open secret that most physicians can do little or nothing in the way of curing Catarrh. We do not wish to throw any discredit upon the profession, but the fact remains. A Toronto physician got a bottle from me the other day for his wife and daughter. He said if this cures them I will be thankful. Other physicians have given us their testimony as to the personal benefit they derived from Dr. Carson's Catarrh Cure. So great is the success that druggists are authorized to refund the money if it does no good. If you suffer, the way to a cure is open. Price, One Dollar. All druggists, or send money to Dr. G. A. Carson, Medical Co., Toronto, and a bottle will be sent to your nearest Express Office free of charge. Send for pamphlet.

WE SAY

To those contemplating buying a Piano or Organ—Buy a good one. Of course we would like to have you buy one of ours, for there are none better, and our prices are as reasonable as possible for instruments of the highest grade, still, if you don't buy ours we urge you to buy a good one. Don't buy an instrument because the price is low. In 99 cases out of 100 that is proof positive that the instrument itself is a poor one. Pay a fair reasonable living price and get an instrument that will be a source of pride and satisfaction for your lifetime. Remember the dealer in inferior goods can always undersell the honest dealer in first-class goods. Don't forget the fate of hundreds of poor dupes who have bought cheap instruments. The fate of the several manufacturers of cheap instruments who have failed during the past 12 or 18 months ought to be sufficient to warn any intending buyer against this grade of goods. Two years ago these men were apparently on the high road to wealth. Their prices were so low that buyers were attracted. They boasted that they could not fill their orders. To day they are either entirely out of business or in a bankrupt condition without trade. Why? Because their instruments were so poor that in a year or two buyers were made painfully aware that they had been woefully swindled, and their neighbours and the public generally profited by their lesson and quit buying at once. Don't forget that the fools are not all dead yet. Don't be one yourself. Remember that if gold dollars were advertised for sale at 50 cents each there would be many credulous people who would send their money and be swindled. Serve them right, would be our verdict. Anybody might know that a first-class piano or organ could not be sold at less than cost of manufacture. Buy only from makers who have established a reputation for superior instruments. The DOMINION PIANO AND ORGAN COMPANY have this reputation. Better pay a little too much than too little. Err on the safe side. Dealers in first-class instruments will not ask you any more than living prices. Each of our instruments is warranted for five years. No manufacturer of strictly first class instruments warrants them for more than five years; and anyone who warrants for six or seven years does it as a catchpenny device for securing trade, and shows that his instruments will not sell on the same basis as first-class instruments. An extra year or two of warranty is thrown in just as a chronicle is given to sell a pound of poor tea. Another device is to offer instruments on short-time test trials, well knowing that the poorest instrument when new would remain in fair condition for a year or so. We do not ask you to buy our instruments on short test trials, but on the strength of ten years' test trials, which they have already had. Ten years' use of our instruments, supported by the endorsement of over 15,000 purchasers in all sections of this country and Europe, together with the testimony of the most critical connoisseurs and the greatest artists, ought certainly to be a guarantee of excellence such as no sane person can reasonably ignore or doubt.

Having had over seventeen years' experience, and during that time sold over 10,000 instruments, with business increasing every year, and having a thorough practical knowledge of the mechanical construction necessary to make a first-class instrument, I would say to intending purchasers, if you leave your orders with me I will guarantee satisfaction in every respect. You can't want more, but you do want that

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COURSE Comprehensive and Practical Instruction, Rapid and Thorough. ROOMS.—Centrally and pleasantly located and elegantly fitted up.
 For Circulars containing full particulars, Address **W. N. YEREX, Principal,** Box 400, London.

A GOOD THING TO HAVE AT HAND!

During the hot weather we cannot be too careful of ourselves, if we would be free from such unpleasant companions of summer as

Cramps, Chills, Diarrhoea, Dysentery, Cholera
Morbus, etc.,

and one cannot do better than to make assurance doubly sure by having always at hand a bottle of the old reliable

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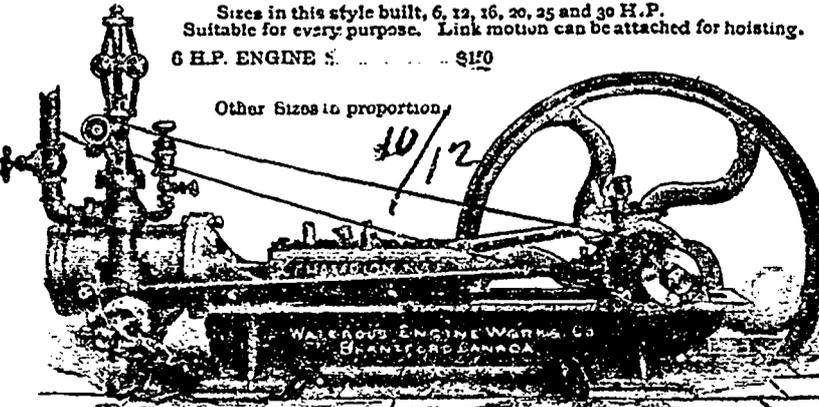
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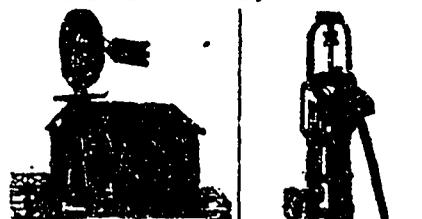
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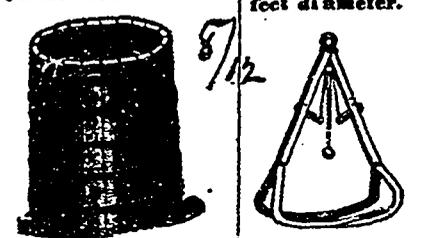
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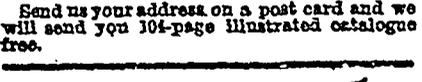
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Make 60 pills. Take 1 pill at 8 p.m., and another on going to bed. In some cases it will be necessary for the patient to take two pills at bedtime, making the number three a day. This remedy is adapted to every condition of nervous debility and weakness in either sex, and especially in those cases resulting from imprudence. The recuperative power of this restorative are truly astonishing, and its use continued for a short time changes the languid, debilitated nervous condition to one of renewed life and vigor.

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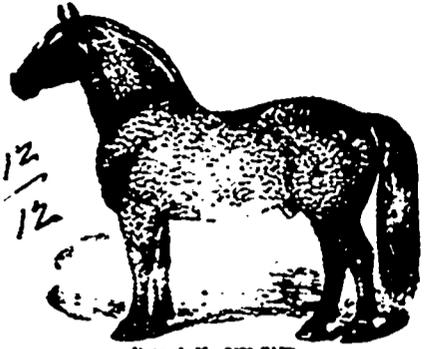
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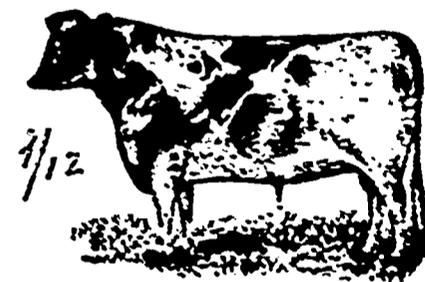


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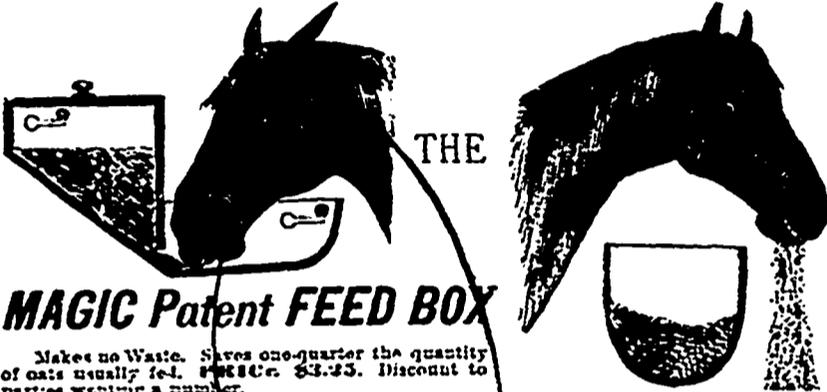
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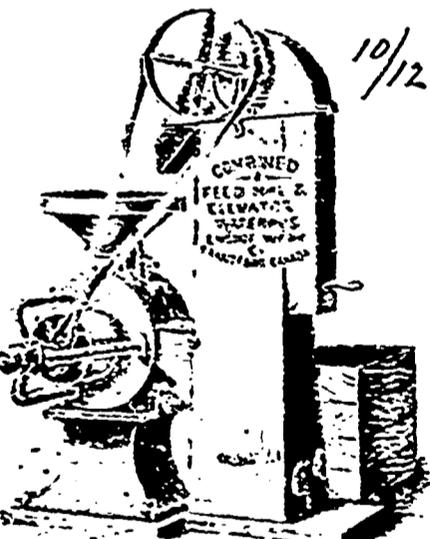
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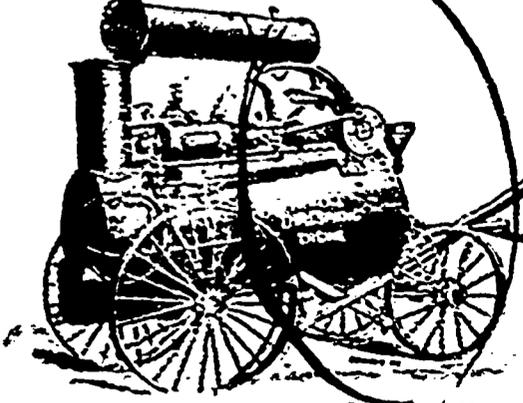
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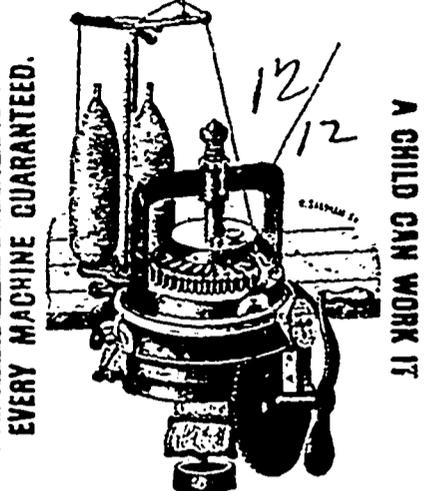


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I am now making a larger number than ever before for the coming season.

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