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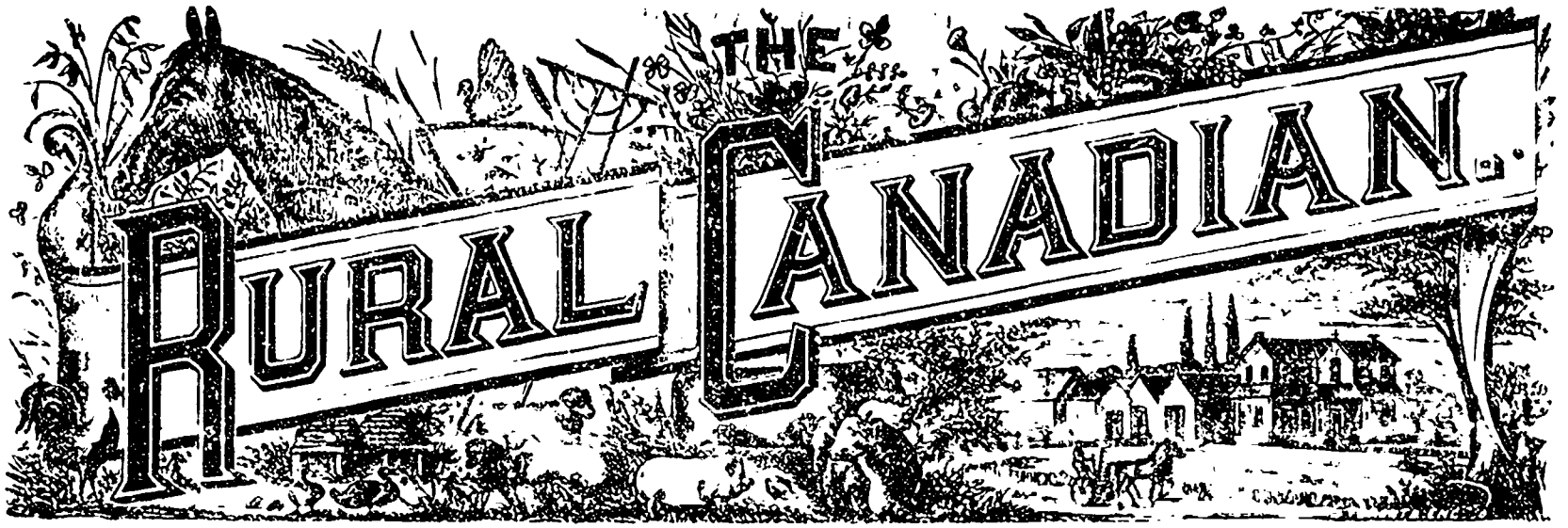
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RURAL NOTES.

Throwing fodder on the ground for sheep is a wasteful practice. Racks will more than pay for themselves in a single winter, and any handy farmer can make his own. Ewes that are to drop lambs need warm and separate pens.

Mr. L. J. Hess, President of the Union County, Illinois, Agricultural Board, says the ice storm seems to have benefited the growing wheat, as it now looks green and fresh, while before the storm all wheat looked dead. Fruit not damaged.

"THERE are three classes of animals in which I have great faith," says John Dryden, M.P.P. for South Ontario. "These are Shorthorn cattle, Clydesdale horses, and Shropshire sheep. For mutton and wool the Shropshires can't be beaten."

THE farmer who holds his grain keeps back just so much money from circulation, while the grain itself shrinks in weight and furnishes a ready store of food for rats. It is not the best economy to keep one's granary full, even though prices are low.

It is a mistake to suppose that exposure to severe weather makes animals hardy. They are far better off under cover during storms, but the buildings in which they are housed should be provided with thorough means of ventilation. Wholesome air is a primo requisite of health.

THANKS to the statistics of grain productions collected by the Bureau of Industries, Ontario is now being thoroughly advertised throughout Great Britain. Agricultural and other journals are giving those statistics a wide publicity, and our Province is likely to be a large gainer in consequence.

A LITTLE linseed meal is excellent for horses and colts, and any team will do better with a sprinkling of it in their oats every day. Sheep will fatten faster with a mixture of it, and their wool will be brighter and better. Linseed improves the look of the coat, whether it be hair or wool.

A FARMER who has had much experience in draining land says that, when quicksand or unsound ground occurs, drains should be cut wider and in some cases deeper, with their sods trampled down along the bottom before either tiles or stone conduits are introduced. Sods thus placed always admit water freely, and the substrata in consequence very soon becomes solid.

It is a pretty well established fact that the greatest profits in fattening cattle are made on young animals. At the Chicago Fat Stock Show a statement was made that a two-year-old steer gave a profit of nearly fifty dollars on its second years feeding, while the next year gave only a profit of seven dollars. The profit lies in pushing young animals constantly until they are ready for market, and selling them as soon as they are ready.

THE Chicago Farmers' Review says the herd of Galloways owned by Mr. Thomas McOrao & Son, of

Guelph, is the largest on this side of the ocean. The senior partner, the *Leciew* says, has been breeding Galloways longer than any other man in the United States or Canada. Last spring he purchased in Scotland forty-eight of the choicest animals procurable. This is the largest importation of them ever made to America.

In a report of the transactions of the Michigan Horticultural Society, two years ago, it was stated that the application of dry slaked lime to apple trees while in blossom was an effective remedy for the codling moth pest. A Maine farmer has tried it with very satisfactory results. The lime, he says, should be applied two or three times - thrown all through the top of the tree and upon all sides of it. If applied when the blossoms are wet, all the better. Prof. Beal, of Michigan, claims better results are obtained if Paris green is mixed with the lime.

Now there is a good chance for our farmers to improve the appearance of their farms, and at the same time to considerably increase their value. The Ontario Tree-planting Fund, created by an Act of the Legislature, only requires the co-operation of township municipalities to encourage every farmer to plant all the borders of his farm with trees. In a few years those trees would give a measure of shelter to his wheat fields, would beautify his farm, and in time would furnish a supply of valuable timber for many needed purposes. For a wooded country Ontario is being rapidly denuded of its forests, and another generation may see the elder settled portions of it with as low a percentage of wooded to cleared land as Old England itself.

It is doubtful if any other remedy can be used for the pea bug pest with half the good results of starvation. So long as farmers continue to grow pea-food the bug will live on and prosper, perpetuating his kind from year to year. One field in a township is enough to save him from extinction, and without common action on the part of farmers there seems to be no hope of getting rid of him effectually. There are laws for stamping out disease in animals, and why not for starving out the pea-bug? An Act which would authorize township or county councils to prohibit the growing of peas for one or more years, when considered necessary in the public interest, would probably answer the purpose. It is a matter of no small consequence to save the country against annually recurring losses of three or four hundred thousand dollars.

In the native woods of Ontario walnut trees have not been found north of a line drawn from the neighbourhood of Hamilton to the mouth of St. Clair River. So states Dr. Bell, of the Geological Survey Service. But it is a fact that walnut can be grown considerably further north. Trees planted in the neighbourhood of Lindsay are thriving well. At the same time we should prefer to confine the experiment of growing this or any other species of tree within the limits of its habitat. They may grow and flourish beyond for a time, but they are liable to be injured any winter by a few days of intense cold. One of the great mistakes made in planting apple orchards in the northern tiers of counties has been, the selection of popular varieties

grown in the warm region of the Lake Erie counties. A more careful selection of hardy varieties is needed to save farmers from yearly losses and discouragements in this particular.

For a long time it was considered that a good quality of sugar could not be produced from the sorghum cane, but with improved processes and intelligent management the question is no longer a debatable one. There are sugar works at Champaign, Illinois, that turn out batch after batch of sugar from sorghum with precisely the same certainty that the Southern planter does from the sugar cane. This sugar is said to have no sorghum flavour nor gummy character, and will sell in the same market at the same price as the New Orleans article, giving the same satisfaction. A West Indies sugar-maker is this year going to try the experiment in the county of Essex, in the western part of this Province, and he is confident of success. He has already made arrangements for the planting of over two hundred acres with sorghum, and the sugar works will be erected at Essex Centre. His experiment will be watched with lively interest.

THE *Mark Lane Express*, in a review of the British grain trade for the week ending Jan. 27th, says: The prospects of the growing wheat crop are about the same as last week, but the outlook for Spring cultivation gets materially worse as the season advances. There was a weaker feeling in English wheat at the close of the week. Flour is weaker. Trade in foreign wheat restricted by higher rates. The supply of wheat in London comprises 17,376 bushels from India, 40,072 bushels from Germany, 28,504 bushels from American Atlantic ports, and 20,332 bushels from Russia. American maize is cheaper. Barley firm, but quiet. Trade in wheat cargoes off coast small. Red Winter unchanged. California higher. Demand for wheat cargoes afloat or for shipment slackened the past week and business done chiefly in Russian grades. Sales of English wheat during the week were 500,280 bushels at \$1.26 per bushel, against 399,104 bushels at \$1.44 for the corresponding period last year.

THE Ontario Legislature has this year made an appropriation of \$3,000 for the purchase of new varieties of seed grain, the intention being to make use of Agricultural Societies as agencies for its distribution. There is much need of introducing new varieties of spring wheat and potatoes, but great care should be taken in making selections. Fraud is easily practised in the seed business; and not a few people who consider themselves as honest as the patriarchs think it is no crime to cheat the Government. A good idea would be to offer liberal prizes to our hybridists for any new varieties of seed of established merit which they may originate. The Vermont farmer who originated the Early Rose potato rendered a most valuable service to the farmers of the United States and Canada. Hybridizing is an interest that deserves to be encouraged. There is no reason to believe that the best possible varieties of fruits, roots or grains are being cultivated now in Ontario, and heretofore our farmers have been relying almost exclusively on foreign hybridists for "new blood." We would like to see more attention given to originating new varieties at home.

FARM AND FIELD.**NUT-BEARING TREES.**

The value of every farm may be increased and the pleasure of its occupants enlarged by a good collection of nut-bearing trees. In nearly every portion of the north-west the black walnut, the white walnut, or butternut, the common and shell-back hickory, and the pecan are hardy and productive. In many sections the chestnut also does well. There are several varieties of oaks that produce acorns that are edible and, indeed, palatable when roasted. All kinds of acorns are readily eaten by pigs and sheep, and in England they are extensively raised for stock food. All these trees are valuable for producing fuel, and some of them furnish excellent lumber. They are of somewhat slow growth, but their growth may be increased by care in planting and judicious cultivation. As the young trees are difficult to transplant, on account of their tap-roots, it is generally best to plant the nuts in the place where the trees are wanted. As the trees are all stately and have widespreading branches, they should stand quite a distance apart. If they are planted in a field that is to be cultivated while the trees are small, it is desirable to locate them where each will occupy the place of a hill of corn or potatoes. As hills of corn are ordinarily four feet apart, the trees should stand at a distance from each other equal to some multiple of this number, as twenty-four, twenty-eight, or thirty-two feet. The latter distance is best for the trees after they become of large size. The trees, if planted as recommended, will not be greatly in the way of ploughing or cultivating when they are small, and after they become large the land can be seeded down to grass and used as a pasture for sheep, pigs, or young cattle. Nut-bearing trees may also be planted in pastures, along the sides of fences, or on the sides of roads.

A sufficient number of nuts to plant a grove can be obtained with little trouble or expense. They can often be collected by travelling a short distance, or they may be obtained of dealers in seeds. Much has been written about the necessity of keeping the nuts warm from the time they drop from the tree till they are planted. It is altogether likely that they will germinate more readily if they are not allowed to become dry, but it is not likely that their vitality is destroyed or even greatly impaired by their becoming dry. Of course they should not be allowed to become mouldy, as the mould would be likely to destroy the germ. Much has also been written about the necessity of exposing the nuts to the action of frost, so that the two parts of the shell shall be opened before the germ begins to expand. Undoubtedly the freezing is beneficial, but that the germ would force the parts of the shell apart without the previous aid of the frost seems evident from the fact that the pecan, walnut, and butternut, do grow both in a wild and cultivated state in portions of the south where there is not a sufficient degree of cold to form ice. Many tropical countries, like Brazil, produce a great variety of nut-bearing trees, and there is, of course, no frost to aid in opening the shells of the nuts. What is known as the English walnut is a native of Persia, a country in which frosts do not occur.

Old practices are often followed for centuries for the reason that no one ascertains by experiment whether they are necessary or not. If it can be demonstrated by experiment that thoroughly dried nuts will germinate and that freezing is unnecessary a much greater number will be planted. Many now neglect to plant them because they cannot obtain them in the condition they think they should be to insure germination.

And the trees mentioned are desirable for affording shade as well as for the purposes of ornamentation. To cause a rapid growth the ground where they are planted should be put in good condition. It is true that the roots of these trees will force themselves through very hard soil, but they will extend further and afford more nutriment to support the trees if the ground is rendered soft. It is advisable to excavate quite a hole where the tree is to stand, and to loosen the subsoil at the bottom of it with an iron bar to the distance of several feet. This will afford a chance for the tap-root to extend. The hole should be filled with forest leaves, well-rotted manure, and fine soil. It is well to plant several nuts in the same place, and to select for raising the sprout that gives the greatest promise at the end of the first or second season. Strong stakes to protect it against animals should then be placed on each side of the tree. The soil for several feet around the tree should be kept free from weeds and grass, and well worked or covered with mulch.

There may be little profit in nuts that can be computed in dollars and cents, though they may often be sold to good advantage to persons who wish them for planting or eating purposes. They add, however, much to the enjoyment of life. Nuts are promotive of sociability and pleasure. A few nut-shells thrown on an open fire will cause the room to be filled with a delightful odour while they make a cheerful blaze. When home grown they furnish cheap luxuries that farmers can hardly afford to do without. Nuts have long been associated with pleasant conversation. In one of the sweetest songs of Tennyson an old man is represented as addressing his wife in these words:—

"So sweet it seems to thee to talk,
And once again to woo thee mine;
'Tis like the after-dinner talk
Across the walnuts and the wine."

ICE AND ICE-HOUSES.

How to procure and preserve a supply of ice in the best manner is a question which, just at this season, occurs to a great number of farmers and dairymen.

In cutting ice the tools required are a saw, an ice-hook, an ice-float, and ice-tongs. The saw may be a common cross-cut, from which one handle and socket are removed, so as to leave one end clear. The ice-hook is a pole about twelve feet long, having a sharp-pointed spike at the end and another projecting at right angles, about three inches from the end, in the form of a hook. This tool is to push or draw the cakes of ice to the loading place. The ice-float is a piece of board about six feet long, having hand-holes cut at one end, and at the other a thick cleat nailed across to hold the cake of ice. This float is pushed under the cake of ice as it is brought to the landing place, so that the ice may be lifted and drawn

out of the water on to the bank. The ice-tongs are simply a pair of grab hooks, with sharp points and handles, by which the block of ice is lifted into the sleigh or waggon.

The ice should be cut into rectangular blocks of equal size; a convenient size is 16 x 24, or 12 x 18 inches, according to the thickness and weight. These are convenient sizes for packing, as they match the size and shape of the ice-house, whether it be square or in the proportion of 12 x 18 feet or 16 x 24 feet.

The ice-house requires four special necessary points to be secured: First, a dry foundation; second, the exclusion of air; third, a sufficient non-conducting covering for the ice, and fourth, ample ventilation above the ice.

The packing of the ice is an important matter. The mass of ice should be solid and without any air spaces in it. As the blocks are brought in evenly cut they are fitted closely; but, as the cutting cannot be done exactly to rule, there will be some spaces here and there between the blocks. As the blocks are built up, some spare pieces should be broken finely and the dust swept with a broom into the crevices and packed down with the edge of a broad chisel fitted on to the end of the broom-handle. Every tier should be well packed in this way before another is begun. If this is well done ice may be kept two or three years in any well-made ice-house and will waste very little in one season. At least one foot of dry sawdust should be placed on the floor for the ice to rest upon. The house should be filled in the coldest, driest weather, and it should be left open a day or two before it is filled. If the weather is very cold the blocks will freeze and the whole mass become very solid if the packing is well done. If inside packing is used this should be put in as the ice is built up and trodden down firmly, and each tier of ice should be swept clean as it is finished. More than half the failures in keeping ice are due to neglect in the packing of it.

By economical management, 100 pounds of ice a day may be made to serve for a dairy of thirty cows with the use of a Cooley or a Ferguson creamery to set the milk in. In making the inside door of any kind of ice-house, pieces of boards are used, placed across the doorway, to keep the sawdust in place, and the space may be protected by several sheaves of straw packed into the doorway. As the ice is used a piece of board is taken away as may be required.

FARMERS' CLUBS.

The thinking, progressive members of nearly every occupation and profession have their clubs or associations. The enterprising farmers of every county should sustain one or more. The following are some of the many important advantages derived from them. They bring farmers together, and often lead to desirable acquaintance and friendship. They awaken thought on many important subjects, and lead to more accurate observations and more accurate conclusions about the results of the various methods of cultivating, managing, feeding, etc. They awaken a spirit of inquiry, and lead to reading and conversation on subjects connected with farming. They awaken a spirit of healthy emulation, a spirit of enthusiasm, and lead to greater efforts to produce good crops and to raise good stock.

The preparing of essays and speaking at the meetings awakens and develops intellectual ability. The members observe that the power to think and express thought clearly gives men position and influence. This leads them to take more interest in educating their families and in promoting every educational enterprise. They tend to give young people correct notions about the value and dignity of farming, to give farming its true position among the useful and honourable occupations, and thus lead the sons and daughters of farmers to respect and follow the occupation of their parents. The meetings should be monthly, except in the busy seasons, and continue from two to three hours. To make them successful a good president is necessary. He should know the good farmers among the members, and have great ability to lead them to state their methods and the results to the association. Have a committee to select questions, and intelligent persons to lead in discussing them, and a good secretary or competent persons to make full reports of the meetings for the county papers. In counties where they do not exist, now is the time to begin.—*Prof. Wm. Smith, Xenia College, O.*

A PLAN FOR DRAINAGE.

Let some enterprising tile manufacturers select careful farmers who own flat lands, and make them something like the following proposition. That the farmer make estimate of his average crops, and the tile manufacturer propose to furnish the tile necessary to drain thoroughly the lands designated in the agreement, the farmer to furnish the labour of putting in the drains at a stipulated price, to be paid out of the excess of crops grown on the land, over and above the average yield before agreed upon, and the manufacturer agreeing to take the balance of the increase in four or five crops (as agreed) to cover the cost of tile.

On level lands, where the average crop runs low and the land by nature is rich, it is a safe proposition for the tile manufacturer if the farmer honestly preforms his part of the contract. On rich, level lands that need drainage, and need it badly, it will pay twenty-five per cent annually on the investment, and in some instances more.—*Drainage Journal.*

LIFE ON THE FARM.

As to its drudgery—whatever has been the case in the past, where there were stumps to be pulled and mortgages to be lifted from almost every field; when it was a long way to market, and the buyer paid for produce "in trade;" when almost all implements were laboriously hewn out at home or clumsily hammered out by the village blacksmith—there is, happily, less drudgery on the farm now, and less need of it every year. Taking the year through, the working hours of a man on a farm are no longer than those of the section hand on the railway or an artisan in the shop, who has his own garden to hoe before breakfast or after supper. The busy lawyer and the doctor in average practice work longer and harder than the farmer. The grocer and the editor and the book-keeper each sees less of his children in their waking hours than the farmer who sometimes envies them their "easy life."

It must be conceded, of course, that the profits of farming are not so large on the average as those which are realized by men who are successful in mercantile life. But, such as they are, they are surer—twenty-fold surer, at least. Large profits are always contingent on large risks.—*Prairie Farmer.*

PLANT MEDIUM-SIZED POTATOES.

The following figures show the results of experiments made in growing potatoes at the experimental farm of Cornell University, Ithaca, N. Y.: The Early Rose variety was planted May 10; the soil a sandy loam, unmanured, and moderately fertile. Each plot consists of a single row fifty feet in length. The rows were four feet apart, and the seed was dropped eighteen inches apart in the row. Below is the yield in pounds:

Plot No.	Yield.		Total Yield.
	Large.	Small.	
1. Small potatoes used as seed.....	30	55	85
2. Medium-sized whole potatoes.....	85	88	123
3. Same size cut in halves, one piece per hill.....	93	26	119
4. Same size cut to two eyes per piece, one piece per hill.....	84	19	103
5. Cut as No. 4, two pieces per hill....	96	24	120
6. Seed end of potato planted.....	86	30	116
7. Stem end planted.....	88	25	113
8. Middle of potato planted.....	73	41	64
9. Seed planted two inches deep.....	26	46	122
10. Seed planted four inches deep.....	98	83	131
11. Cultivated flat.....	94	91	125
12. Cultivated in ridges.....	89	29	118

Potatoes less than an average sized hen's egg are classed as small. It appears that medium-sized potatoes, cut to two eyes, and two pieces to the hill, gave the best results, that deep planting and flat culture did the best. These experiments, if they do nothing more, point out to our readers the advantage of such trials, and we hope there will grow among farmers a disposition to make annually similar tests in the culture of any and every farm crop. Much can be gained in this way.

LET THE LIGHT IN.

There are few farm-houses in which at least one room—often one of the best—is not kept shut up most of the time; and the spare-room intended for visitors in city homes seldom fares much better, so far as the admission of light and air are concerned. Then we put blinds on our windows to keep out the heat in summer and let them keep out the light all the year; we hang up curtains for purposes of household decoration, and regard the resulting gloom as a necessity of modern life; we even devise all fantastic forms of coloured glass for our dwellings in order to modify what little light does get in.

No house can be clean that is dark; and no house that is not clean can be healthy. Pure light is a purifier. It destroys the poison of organic disease. Its efficacy in this respect may be illustrated by the fact that the poison of the most dangerous of serpents, the cobra, which will retain its fatal power indefinitely if kept in the dark, becomes innocuous after continuous exposure to the action of sunlight. Let the light into every room, then, every day.—*N. Y. Ledger.*

PRUNE the trees that need it most, whenever the weather is mild, or else it may be neglected until the hurry of the spring work begins, which will render it impossible. Paint the wounds with light-coloured paint.

HINTS FOR THE HOUSEHOLD.

LEMON SYRUP.—To every pint of juice, add one pound and a quarter of white sugar. Simmer until clear, then cool and bottle, corking tightly.

BLEACHING powder can be obtained by the combination of chlorine with dry slacked lime, but is commercially obtained as a bi-product in the manufacture of soda. The first application of bleaching powder for bleaching purposes was made towards the end of the last century.

WHEN colour on a fabric has been accidentally or otherwise destroyed by acid, ammonia is applied to neutralize the same, after which an application of chloroform will in almost all cases, restore the original colour. The application of ammonia is common, but that of chloroform is but little known.

CAREFUL cooking of even the longest used and best known kinds of foods, whether animal or vegetable, is the important rule to insure health and strength of the table. No matter what the quality of the food to begin with may be, a bad cook will invariably incur heavy doctors' bills and a not less considerable "little account" at the druggist's.

BEEF HASH.—Chop cold cooked meat rather fine; use half as much meat as boiled potatoes chopped, when cold. Put a little boiling water and butter into an iron saucepan; when it boils again put in the meat and potatoes, well salted and peppered. Let it cook well, stirring it occasionally. Serve on buttered slices of toast, daintily arranged on a platter.

MINCE PIES.—A good disposition in winter of cold roast beef is to make with it two or three mince pies. One cupful of chopped meat, quarter of it fat, two cupfuls of apple, one teaspoonful of salt, one tablespoonful of ground cinnamon, half a tablespoon of ground cloves, one cupful of sugar, half a cupful of raisins, half a cupful of currants, one cupful of cider; or, if preferred, one cupful of cider vinegar and water mixed.

A GREAT labour-saving article, and like some medicines, good for almost everything, is ammonia. A small quantity in warm water takes every spot off of paint, removes every particle of grease from cooking utensils, cleans and disinfects the drain pipe, cleanses delicate laces without rubbing, cleans silver, brushes, etc., and is an excellent fertilizer for plants. Like other good things, it must be carefully used, plainly labelled, and kept out of the reach of little fingers.

PUT all scraps of bread into the oven until they become a nice brown, roll them while hot quite fine. For a good-sized pudding take half a pound of crumbs, quarter of a pound of currants or raisins, one pint of milk, one teaspoonful of allspice, and one pint of boiling water. Pour the boiling water over the crumbs, stir them well, and let them soak until soft; then take all the ingredients, mix well, rub the pie dish with beef dripping, fill it, put some more, dripping or butter on the top of the pudding, and bake half an hour. This pudding is a general favourite with children and those who like a plain dish.

GARDEN AND ORCHARD.

OLD ORCHARDS.

I do not intend to speak strictly of orchards planted a long while ago; but of all orchards that are dying out. I have one planted in the last century. I am sorry to say that it was mostly dead before I knew how to treat it.

My plan was, as soon as a tree showed signs of serious decay, to plant a young tree near by, that should take its place when no longer of any value. The young tree would thus get several years advance toward fruit-bearing before the old tree was removed. The plan was far from being the best. I find now that when the old tree has a solid trunk, or fairly so, it is advisable to allow a few suckers, carefully selected, to grow at the base of the limbs, and with them form a new top, cutting out the old limbs. This, however, cannot always be done, and will, perhaps, not always be desirable. But, at the roots, select two suckers that start a few inches from the trunk; trim away all others; trim these carefully and prepare them to take the place of the old tree. Select two to stand for a few years, since one may fail in some way to be reliable. These should be grafted in due time; and, when a fair selection can be made, cut away the poorest. A tree started thus on the roots of the old tree has a vast root growth to feed it and it will grow with enormous rapidity. Cut the old tree when desirable, or before the young is made unshapely, and you will hardly know you have had a vacancy.

The same rule holds good with blighted young orchards. Last year thousands of apple trees were killed in Central New York. I have seen whole orchards of fine young trees swept out, and nothing done about it. But I have rarely seen a tree thus killed that was not soon surrounded with scores or hundreds of twigs. Now let the owner clean away promptly all but two, care for these two, and then, in time remove all but one. In five years his orchard is all there again, restored with double vigour of growth and not likely to meet with another fatal disaster for fifty years.

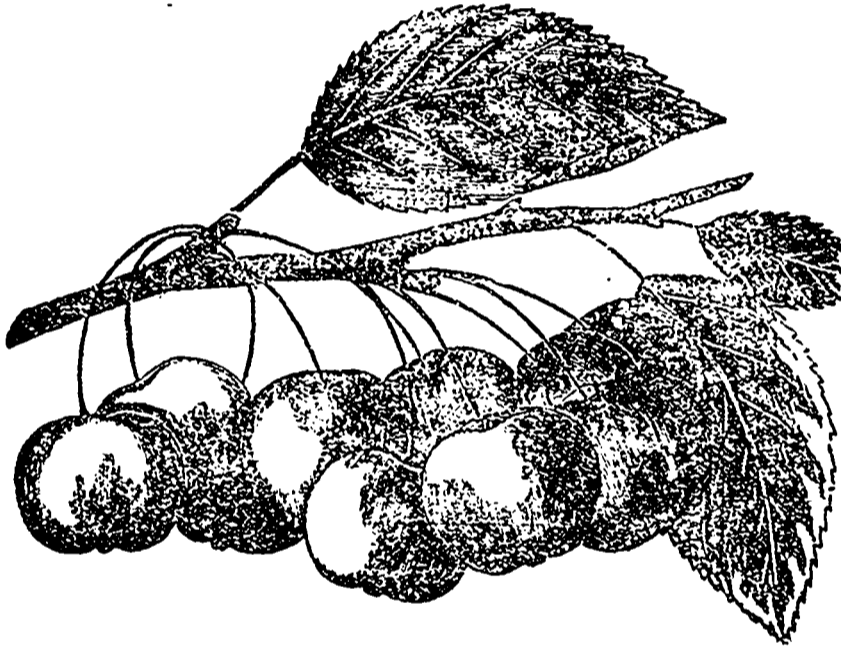
Driving by a large orchard of dead trees, lately, I asked the owner what he proposed to do about it. "I'm discouraged," he answered. "They had just begun to bear, and away they have all gone in a dash." "But," I said, "if you will spend one-half day now among those green twigs that shoot up at the bottom you will not lose your money, your courage, nor your orchard. If you dig them out and set anew, it will cost a large sum." "That looks reasonable," he answered, as I explained the process. But two months have passed, and he has done nothing. So one year is lost and the end will probably be the axe or the spade.

It is getting to be a matter of a good deal of importance, also, for the public at large, that farmers who grow orchards eliminate varieties that are not hardy and profitable. In renewing an orchard, reduce your list of varieties. This exceedingly bad year I find but

one really fine lot of apples in my orchard. Every tree of the Kirkland is full of fine, clean fruit. It is a seedling of this section, of remarkably tough wood and hardy as an elm. The Hubbardston, Nonesuch, White Pippin, and Northern Spy are also doing fairly well. Greenings give considerable fruit, but not fair. It is a sharp test year on fruit, as the past two winters have severely tested the wood.

In renewing my orchard, I am inclined to secure, as far as possible, apples native to this latitude. The Spy, the King, the Kirkland, and the Baldwin are four varieties that do well constantly; but the King is utterly unsuited to graft in for renewal. When I succeed in making a new head for an old tree, my choice is to graft in the Baldwin. It will come to quick bearing and pay speedily for your trouble. The Roxbury Russet is also a good graft to speedily form a new head. The chief difficulty with the Baldwin is that it will overbear, and, as the wood is brittle, will split down. This makes it a better graft for old trees than for young ones.

Most of the difficulty with our old orchards



requiring renewal is the lack of proper and prompt trimming. Suckers take the life out of old limbs with great speed. There should be a regular annual pruning, as annual haying. You may as well expect your wheat to take care of itself as your apple trees.—E. P. P.

CRAB APPLES,

The leading varieties of Crabs grow in every part of Ontario and yield very large crops. At Arnprior, and in Muskoka, as well as in the front counties, the Siberian (illustration above), Transcendant, and Montreal Beauty are found to be equally prolific. The Siberian begins to yield fruit in four years after its removal from the nursery, and bears a profitable crop in six. The others are also early bearers.

THE LATEST NEW STRAWBERRIES.

A correspondent sends the following account of the latest remarkable new seedling strawberries to a New York paper. It is to be remarked that the descriptions sent are wholly in the public interest, and not from any selfish motive on the part of the writer, as he

has not a solitary plant for sale, and does not expect to have for several months to come:

"'Heliogabalus Double Early,' is a large and squat berry, with blue eyes and a coy, winning mouth, bursting all over with coquettish sweetness. It is a good grower, but requires judicious tickling with a straw to awaken it to a generous enthusiastic interest in its own cultivation.

"'Reddy the Blacksmith Round Top Seedling,' is a good family berry; but of no use in general society. The last crop was a failure, owing to the name, which weighed heavily on the berry, and retarded its growth.

"'Blue Jeans Late Canadian Songster' used to be fine, but has fallen into dissipated ways, and is more or less stunted, and has an acid flavour, like an old maid whose last hope has just been carried off by a red-headed girl with freckles.

"'Calithumpian Aurora' is a beautiful boarding-house berry, much admired by dealers. Owing to its modest and retiring habits which impel it to grovel on the cold, cold ground, it is enabled to pick up and retain large quantities of sand and dirt, on which account it is sometimes called 'Triumph of Real Estate,' or 'True Grit.' This berry may also be used by careful housekeepers in the place of bath brick.

"'Tuscarora Conquest' promises to develop to such wonderful proportions that two of them adroitly manipulated by street vendors, could be made to fill a box with bottom located about half way to the top. It also promises that each would be sufficient for a short cake. However, it is not great in size. It is probably as small as Conklings chances of becoming President. 'Tuscarora Conquest' is a slender, low-necked specimen of its kind, and, when feeling well, is productive as a Spring poet. The best way to raise it is with a pair of ice tongs.

"'Fur Tippet' I consider one of the finest berries I have ever seen. This berry is so phenomenally intelligent that it can be trained to jump through a hoop and do light chores about the house."—*Gardener's Monthly*.

GRAFTING THE GRAPE.

Professor Budd gives the following directions in the *Iowa Homestead* for grafting the grape. Root grafting, he says, is as easy and certain as grafting the apple. Scions of Delaware and other fine sorts may be grafted on such strong-growing vines as the Concord, inserting the grafts on the crowns of the roots early in winter, merely winding with waxed thread without waxed-plasters, and packing in boxes till spring. For out-door work wait till the leaves are about two-thirds developed, and set the scion, by whip or cleft mode, low enough to be mounded for covering the place of union; the graft will usually make a good growth the same season. Professor Budd has known the Delaware thus grafted on wild vines to bear a growth of ten feet the same season and make crop the next.

THE DAIRY.

GETTING THE CREAM.

The best process of making sweet butter, or more properly sweet cream butter, is as follows: For this product the cream, whether in dairy or creamery practice, is almost universally obtained by the cold process, and the milk should be set as soon after it is drawn as possible, and promptly cooled. The use of covered vessels should be avoided. If the vessels containing the milk are surrounded by cold water or cold air, there is no possible advantage in their being covered, while the quality of the butter is impaired by the means. Not only is the quality of the butter improved by exposing the milk and cream to the action of free air, or air from which the vapour has been condensed by contact with ice or ice-cold water, but the flavour and aroma of the butter are improved. No funnel, tube, or other attachment to any form of cover ever yet began to remove nearly all objections to it.

In the Danish practice, the milk is set cold, and skimmed at twelve hours. In many dairies, and indeed it is claimed to be the more general practice, the milk is skimmed twice, only the first skimming going into the sweet product. The cream from the morning's milk is kept cool over night, and the next morning mixed with that from the evening's milk. It is then put into warm water and the temperature raised to 52° Fahr., stirring it meantime to make sure that it is all evenly tempered and aired. It is churned in a geared churn with vertical paddles, driven rapidly for forty minutes, during which time the temperature rises to 59° Fahr. No water is allowed to come in contact with it at any time. If it is desirable to fill up the churn, new milk is used. For rinsing down the churn, skim milk entirely sweet is used. When the butter comes in little pellets it is "sieved," or as we should say, it is collected on a hair sieve, through which the buttermilk is strained, then carefully hand worked till the residue of the buttermilk is extracted, and gathered into little lumps of two or three pounds. It is then weighed, and salt to the amount of three per cent. of its weight sprinkled over it, when it is piled up and left to become solid and for the salt to draw any remaining particles of milk. It is next cut across the lumps, mixed, and the salt worked into it. If it has become soft in the process of working, it is broken up and placed in a tin vessel, with sticks to keep it from contact with the tin, till it becomes firm. It is then rolled with plated rollers a few times, packed in wooden tubs and sent to market. There it is graded, resalted and tinned, after which it goes to the ends of the world in perfect condition.

In making Petersburg butter, which is a popular European sweet-cream butter, the cream is heated to about 160° Fahr., being frequently or constantly stirred. It is then cooled to a low churning temperature and quickly churned. The subsequent treatment is not essentially different from the Danish. It is considered by connoisseurs much the finest butter made.

In making American sweet-cream butter the process of manufacture does not materially

differ from the Danish, except that it is generally washed and rarely worked by hand. It is perhaps more generally made of the cream taken off the milk to be made into cheese in the two-product creameries. The stock from which it is made is unquestionably superior to the Danish, and with the same care and labour bestowed upon its manufacture, it ought to be the better article. That it is not is the almost unanimous testimony of commercial men and experts.—*Live Stock Journal*.

DAIRY FARMING.

... Dairy farming is naturally divided into three great classes—butter making, cheese making, and milk selling. Probably the order of development, in time, is as given. Butter making is one of the oldest of arts, and is practised in almost every country in which the cow is domesticated. Cheese making is also ancient and widespread. Milk selling, as a prominent feature, is found only in countries with comparatively densely populated towns and cities. In the last twenty years this branch of dairying has not only grown enormously with the growth of our cities, but its methods have greatly changed. Instead of reliance on dairies kept in or near the cities, the great mass of the milk now supplied to our great cities is carried by steam cars from farms in the surrounding country, some of them fifty or sixty miles distant. This change is almost as striking as is that from the manufacture of cheese and butter exclusively at the farms to their manufacture in large establishments handling the milk from a score or more of farms.

... If we seek reasons for the good profits which dairy farming, wisely pursued, has generally given, we will find that dairy products are not only in constant demand, but that the demand is increasing; that there is great difference in the quality of these products, with corresponding difference in price, and consequently even greater difference in the profits; that cheese is well adapted for export, and it and butter, from their small bulk in proportion to value, are well fitted for comparatively long shipments. Perhaps more important than any of these reasons is the fact that the dairy farmer must necessarily give constant, daily attention to his work, and that this work gives room for as much skill as does any branch of farming; more than most other varieties.—*Breeder's Gazette, Chicago*.

THE "COMING COW."

The position that the "coming cow" is to be one well adapted for both beef and milk production, we believe to be correct, if it be not pushed too far. There is an increasing number of dairy farmers who find it best to give almost exclusive attention to the quantity and quality of the milk given by their cows; caring little about their merits as beef makers. So there are beef-producing farmers who properly count it a disadvantage if a cow gives a large flow of milk. This is true on the western plains. It is true of such farmers as J. D. Gillette, who only ask of a cow that she shall produce and feed a calf each year. But both these classes form but a minority of cattle raisers. The most successful dairymen and the producers of the very finest beef ani-

mals may be found in these classes; but the great majority of cows and of steers for beef are, and long will continue to be, raised by men who cannot afford to ignore either the milk-giving or meat-producing quality. For such men the popular breed must be one with deserved claims to good quality in both directions. It is quite possible that several breeds may, in the future, be claimants for highest merit for this double purpose, but the course of breeding now adopted by the special friends of most leading breeds is calculated to develop one of these qualities at the expense of the other. The Short-horn has never been surpassed, if equalled, as a "general purpose cow." Ought she to lose all reputation as a dairy cow?—*Breeder's Gazette, Chicago*.

MILK.

There is much to be learned yet concerning milk. We know that milk is not a filtration, but is manufactured within each division of the udder, and is therefore variable according to the working power of each separate factory. We know there is a difference, through analyses of the milk of each teat separately, as such analyses have shown a variation in physical constituents as well as of structure. We also note that what effects the efficiency of the factory has also a perceptible effect upon the milk. It is this relation between the milk and the cow which causes the dairy cow to exist, and which enables us to say boldly, that breed is superior to feed. On account of this structural relation of milk, its secretion becomes influenced by heredity, and the breeder is enabled to add up qualities through successive generations of selection, even as the book-keeper adds up his successive items in the column of his ledger, in order to obtain the total results. The heredity of the wild cow has not been selected in the direction of milk. The cow in a state of nature yields milk, but in the presence of her calf. The dairy cow, however, the creation of the art of man through the process of selection, has had successive advances in milk-giving added on to each generation, until, unlike the wild cow, the dairy cow yields milk to man, irrespective of the presence of the calf to excite the flow. The wild cow may be fed the most succulent and milk-promoting foods, and yet she gives no profit to the dairyman. The dairy cow, however, responds to feed in milk to a greater or less extent, according to the heredity of the milk secretion which she represents.

Under this condition, we should expect to find phenomenal occurrences in our individual cows, such as excessive yields of milk, of butter, or of cheese; yields prompted either by accidental circumstances, or else through what we must call the accidental accumulations of heredity in some special direction. Thus, in my past experience, I have known the milk of each teat of the same cow to vary from twenty-four to forty-two per cent. of cream; and one day the milk of a cow, which usually only marked from thirteen to fifteen per cent. cream, gave distinct definition of sixty per cent. of cream. Thus, some Jersey cows have yielded as much as three pounds of butter a day, or more; thus some cows have a record of rising 100 pounds of milk a day for several successive days.—*From (N. Y.) Experiment Station Bulletin*.

HORSES AND CATTLE.

DEVON CATTLE.

Col. M. C. Weld writes as follows in the *American Agriculturist*: "One who sees a herd of Devons for the first time is struck with their extraordinary beauty and uniformity, and sees at once that they differ from every other breed, or stock of cattle with which he is acquainted. They are of a brilliant, rich mahogany red, without white upon the body, but with white switches to their tails, and frequently with white udders. Though heavy in carcass, they are light-limbed, and the older cows low-set. Their heads are small and clean cut, elegantly placed and carried high, while they are adorned with long, light, tapering white horns, curving upward and outward. Their throats are clean; withers thin; necks free from dewlaps; chests very wide, and briskets projecting and hung low. In girth they are large for their height, very thick through the heart, and unequalled in the crops, which point carries the fulness of the shoulders back to the ribs without perceptible depression. The backs are very level from the withers to the setting of the tails, which are long and delicately tapered. The loins are wide and muscular; the hips wide apart, the back long to the rump, while the thighs are long to the hocks, and in the twist well let down, yet in the lower parts they are thin, giving room between them for capacious udders. The soft flanks are usually very low, giving the barrels a cylindrical, level look upon the under side. Devons are commonly heavily coated, and the hair is wavy, if not positively curly, in many cases. The skin is plastic and mellow under the touch, even when the animal is in low condition, but when in good order it is typically fine, not thin and papery, but elastic and yielding under the pressure of the finger tips, and offering a mobile, unctuous handful if grasped over the ribs. The skin colour varies, but not a few show a rich cream colour, inclining to orange under the fore-arm, and in the ears. Add to this description that the legs are short, small-boned and clean, that the whole carriage and style are elastic and graceful, with a promptness and energy rarely seen in neat cattle, while the large, lively yet placid and fearless eye indicates at once intelligence, confidence and repose, and we have a picture of a high-bred, beautiful and useful race of cattle, such as has no equal anywhere. The oxen are much trained, very quick in their movements, fast walkers and untiring workers. The cows are deep milkers."

TAKE CARE OF YOUR HORSES.

Never allow anyone to tease or tickle your horse in the stable. The animal only feels the torment, and does not understand the joke. Vicious habits are thus easily brought on.

Never beat the horse when in the stable. Nothing so soon makes him permanently vicious.

Let the horse's litter be dry and clean underneath, as well as on top. Standing on hot fermenting manure makes the hoofs soft, and brings on lameness. Change the litter partially in some parts, and entirely in others

every morning; and brush out and clean the stall thoroughly.

To procure a good coat on your horse naturally, use plenty of rubbing and brushing. Plenty of "elbow grease" opens the pores, softens the skin, and promotes the animal's general health. Never clean a horse in his stable. The dust fouls the crib, and makes him loath his food. Use the curry-comb lightly. When used roughly it is a source of great pain. Let the heels be well brushed out every night. Dirt, if allowed to cake in, causes grease and sore heels. Whenever a horse is washed, never leave him till he is rubbed quite dry. He will probably get a chill if neglected.

When a horse comes off a journey, the first thing is to walk him about until he is cool, if he is brought in hot. This prevents his taking cold. The next thing is to groom him quite dry; first with a wisp of straw, and then with a brush. This removes dust, dirt and sweat, and allows time for the stomach to recover itself, and the appetite to return. Also let his legs be well rubbed by the hand. Nothing so removes a strain. It also detects thorns or splinters, soothes the animal, and enables him to feed comfortably.

Let the horse have some exercise every day. Otherwise he will be liable to fever and bad feet. Let your horse stand loose if possible, without being tied up to the manger. Pain and weariness from a confined position induce bad habits, and cause swollen feet and other disorders.

Look often at the animal's feet and legs. Disease or wounds in those parts, if at all neglected, soon become dangerous. Every night look and see if there is a stone between the hoof and the shoe. Standing on it all night, the horse will be lame the next morning. If the horse remains in the stable his feet must be "stopped." Heat and dryness cause cracked hoofs and lameness. The hoofs should not be "stopped" oftener than twice a week. It will make the hoof soft and bring on corns.

Do not urge the animal to drink water which he refuses. It is probably hard and unwholesome. Never allow drugs to be administered to your horse without your knowledge. They are not needed to keep the animal in good health, and may do the greatest and most sudden mischief.—*Stable Hints.*

A "COMMON FARMER'S" EXPERIENCE.

Cattle feeding, as practised on large, fancy stock farms, with stock scales, oil-cake, different kinds of ground grain, large quantities of roots and perhaps ensilage, and withal a thorough system of doing everything, is a fine art of which poor, ordinary, slow-going farmers know nothing. It is to this class that I unfortunately belong. I have no thermometer in my cow stable, and yet I try to keep my stock comfortable and I think that I succeed. I have no stock scales on my threshing-floor to weigh my young animals from time to time, and it is possible that in this respect I may be the loser when I come to sell an occasional animal to an itinerant drover, for such a bargain and sale is not much more

than a game of wits, and the drover has had the most practice in guessing weights; hence he may sometimes get away with several cwt. of beef more than I thought I was selling. But, as I have intimated, I am not a fancy farmer and stock scales cost a good deal for first cost. There are lots of "fancy fixings" to be employed in the care of stock, about which I do not know much or anything, and yet I try hard to take good care of my stock and make as much as possible from them. I do not keep a tabulated record of milk produced by each animal in the dairy during the season, nor have I a framed pedigree hanging up in the stall of each animal, and yet I have a herd of registered Jerseys, and I know approximately the value of each individual in the dairy. It is to such farmers as these that a few hints on the winter care of stock may prove both timely and valuable. One of the most important things to stock during the winter is salt. In summer, stock manifests this craving for salt by chewing bone, old scraps of leather, etc., and in this way experience some little relief. I used to be told that when stock chewed bones it was because their systems required bones, and the only way was to feed ground bone. With years' experience, I wish to say that this is most arrant nonsense. When stock take to chewing old pieces of leather and bones, there is no lack in their systems which good rock salt can not supply. In winter, stock can not usually find these old scraps of leather, etc., and have to depend upon the knowledge of the herdsman. I have a trough in the yard which is kept supplied with salt both winter and summer. In addition to this I give each animal in the stable a small handful. Care should be exercised in giving salt to cattle; too much is very apt to induce souring, which always produces an ill effect upon stock. This is the reason why stock fed upon hay, which was salted for the purpose of saving it, too often do not do as well as was expected. Stock require salt regularly, both summer and winter, and will not do well if deprived of it; but they should not be forced to take too much at any one time. It is an actual necessity to stock, and with it they will need but little other physic.—*F. K. Moreland, in Breeder's Gazette, Chicago.*

THE FARMER'S HORSE.—HOW TO BREED HIM.

On this important subject the *Breeder's Gazette* has a useful article from which we make the following extracts:—

But there is a happy mean—a horse that will weigh from 1,100 pounds to 1,200 pounds, and about fifteen and a-half to sixteen hands high; good-tempered, active, docile, intelligent, quick of motion, sure of foot, and easily taught. Such is the horse best adapted to the varied use of the farm. Not so high-priced on the market as the 2.20 trotter, or the handsome, stylish carriage horse; not reared with anything like the certainty as where 1,600 to 1,800 pounds weight is the sole end of the breeder's effort; but much better and worth much more money to the farmer than either of these, if he wants him for his own use.

How can we breed such horses? With such mares as are now owned by a large proportion of the farmers throughout the western

States, he need not concern himself much about the size; they will be big enough to fill the requirements, because the thousands of Percheron-Normans, and Clydesdales, and English Cart-Horses that have been imported within the past twenty years have graded up the stock, so far as size is concerned, until the size best adapted to the farmer's use is quite as easily exceeded as otherwise. If we are to continue to use stallions of these imported strains, let our choice rest upon the smaller, more compact, quick, active, spirited ones among them; because, as a rule, they are too sluggish, too coarse, too dull and too heavy for the farmer's own use, however well they may sell and however well they may be adapted to some other purposes. But, in our opinion, more certain results will be attained from the use of our own highly-bred strains of roadster and thoroughbred stallions, upon these large, half and three-quarter draft-mares. A strong, sound, well-muscled, intelligent, quick-gaited horse, with two or three good trotting crosses, such as Hambletonian, Mambrino Chief, Vermont Black Hawk, or Clay, built upon a thoroughbred foundation—not a "said-to-be," but good, old Lexington, or Glencoe, or Sir Archy, or Grey Eagle, or Medly, or American Eclipse stock, and you have something that, for the farmer's use, is as good as gold. And we are not sure that with our coarse, cold-blooded draft-mares it will not, in most cases, be quite as well, or even better, to let the top trotting crosses go, and take a large, strong, compact, sensible, business-like thoroughbred sire to begin with. The great trouble with the majority of thoroughbreds is temper; they are, as a rule, too high-strung and mettlesome for good work-horses. But our draft-mares, on the other hand, are too idiotic, and dull, and sluggish, and soft, and flat-footed, and coarse-grained to be well adapted to farm work; and so, by blending the two types together for a few generations, we may succeed in eliminating the bad and retaining the valuable features of both, and so produce the model farmer's horse.

TRAINING A COLT.

Bad horses are more frequently made than born. It is very much in the bringing up—in the way a colt is cared for, and the manner in which it is broken. Firmness, with kindness, goes very far in making a valuable horse. The colt should early learn that it is never to be deceived; that it is to be encouraged and rewarded when obedient, and punished by the withholding of caresses when disobedient. The same natural qualities that make a horse vicious, will, with proper treatment, make one of those intelligent and spirited horses that all desire to possess. The true trainer of colts is gentle, loving, firm and thoughtful, and the young animals of his charge partake of the same qualities.

JERSEY POINTS.

Unless the brilliant prospects of this breed are to be wrecked, it is quite time to get out of the follies as to whole colours and hues, and to determine the position as to merit from produce, at least as much as from form. No doubt an experienced man can form a pretty good general opinion from what a cow looks like, as to what her yield and its quality

may be; but, when positive proof can be obtained by testing comparative excellence in milk and butter, it does seem fallacious to remain content with a pretty good general notion where one might have a certainty. It is with no wish to disparage the efforts which Jersey men have made and are making to improve their singularly graceful and serviceable cattle, that one says there may be too many of them at a show and in the country. Except for crossing with the Kerry, Jersey bulls are not desirable neighbours. Their shape is enough to give a beef-breeder the nightmare, and their noise is the most doleful sound heard in the country.—*Journal Royal Agricultural Society of England.*

REMEDY FOR HOLLOW HORN.

The treatment required for the disease which produces the condition of the horns, known popularly as "hollow horn," is as follows: The most conspicuous symptom is a general low fever, with heat or coldness, or both alternating, of the extremities, chiefly of the horns and ears. The membranes of the head are congested, inflamed, and there is often a discharge from the nose. The first treatment consists of a brisk cooling purgative, such as one pound of epsom salts, if the horns and ears are hot and the muzzle dry; if the horns are cold and the nose is moist, a quart of linseed oil should be given and turpentine should be freely rubbed about the roots of the horns and the ears. After the purgative, in either case, warm gruels of linseed or bran should be given, with a teaspoonful of ginger, and the animal should be well nursed. A tarry stick should be stirred in the drinking water, or if it is not readily taken in this way a little tar should be rubbed on the tongue every day.—*N. Y. Times.*

CONTROLLING THE HORSE.

The reins may guide the horse, the bit may inspire him by its careful manipulation, and the whip may urge him forward to greater ambition; but the human voice is more potent than all these agencies. Its assuring tones will more quickly dispel his fright; its severe reproaches will more effectually check his insubordination; its sharp, clear, electric commands will more thoroughly arouse his ambition, and its gentle, kindly praises will more completely encourage the intelligent road horse, than the united forces of the bit and reins and lash. No animal in domestic use more readily responds to the power of kindness than the road horse.

HORSE'S TAIL OVER REINS.

I can tell your correspondent, W. H. B., of an improvement in his method of treating a horse which catches the line under his tail. Let him tie the cord to a portion of hair of the tail, and fasten it to the harness below, rather than to any part of the carriage. A suitable portion of hair on the under side of the tail is taken and tied into a loop so that a cord will hold fast. The cord being tied near its middle, the two parts are put round the breaching, and the ends tied together so that it will not be fast to the breaching, but will leave a good deal of use of the tail. If the string is of the proper length—which a

trial will show—the arrangement will completely prevent that very annoying trick, and it is out of sight, and is not a serious inconvenience to the horse.—*Cor. Country Gentleman.*

SELLING YOUNG CALVES.

In most dairies a calf is valueless and is sold almost immediately after birth. Not only is this unwise and unprofitable, but entails on buyers the purchase of that which is unfit for food, to say nothing of the cruelty practised on the little creatures that are sent to market. They are killed by a slow process of torture, in order to render the flesh white, and the parties who handle the meat have no scruples regarding the safety and health of those whom they serve. Every cow that is slaughtered, if near calving, is unfit for food, and the embryos are skinned and the flesh sold all the same as those that have matured sufficiently for birth. When it is considered that the prices obtained for such young calves are but trifles, it is a surprise that they are not kept with their dams until old enough to make good marketable veal, as they grow rapidly and soon reach a fair size. Another point is that the milk from cows that have been so deprived of their young is ropy at first and unfit to be sold. In the south the people will not drink milk from cows until the calves are from six to eight weeks old, sometimes more, and they claim that the price of a good large calf more than pays for the milk it consumes.

When calves are taken away so young, it shows that the dairyman keeps a scrub bull, and such custom has done more to prevent the improvement of our dairy stock than anything else. Occasionally a female calf is spared for the dairy because the dam is a good milker, the breeder forgetting the presence of the scrub bull on his farm, and if the calf does not fulfil expectations she is condemned as inferior, the bull, in the meantime, getting no blame whatever.

FATTENING STEERS.

We frequently read of steers weighing any place from 3,500 pounds up to "nearly or quite 4,000 pounds." But the liberal prizes offered for heaviest steer, and the excellent opportunity afforded for disposing of them, do not bring such animals to the fat-stock shows. If we remember right there have been three different animals shown which weighed over 3,000 pounds, with 3,150 as the heaviest weight. It is safe to conclude that most of the published statements about monster steers are incorrect. Frequently they are based on estimates rather than tests on the scales.

Does it pay to fatten steers for market at less than two years old? Yearling steers weighing 1,600 pounds, or more, have been shown. A good number of the yearlings have been well ripened. Some of them had evidently reached their best condition; a few had passed this point. But the question can not be regarded as conclusively settled that it is as profitable to market at under two years old as it is a year later. Possibly in the average simple modes of keeping steers in the west, three-year-old steers may give as good returns as those of younger age. We have certainly reached a time when it is rarely profitable to keep a steer until he is four years old.—*Breeder's Gazette.*

SHEEP AND SWINE.**WINTERING STOCK HOGS.**

A very important matter in wintering stock hogs is to have a proper place for them to sleep. They want a dry place. Their shed should be well ventilated, yet so made as to give protection from rain and snow, and the cold blasts of wind. Their bed should never be allowed to ferment or get dusty. Small shoats, on lying down, will root their noses in the dust, and will soon breathe enough of it to give them the thumps, which is certain death to them. Plenty of old salt sprinkled in their bed is a nice thing to keep down the dust. It is true the winter season is over now. But let farmers remember and profit by the mistakes of last winter. A very good practical farmer told me that last fall he had about thirty nice young hogs, all in good growing order. He left them out, exposed to the weather, without any kind of shed to protect them. Through the fore part of the winter they seemed to do well enough. But finally they got sick—one or two, and now and then three or four at a time. They would stand around and wheeze and cough, and would soon die. All died except twelve. Now, is it not evident that from being exposed to the severe storms and changes of the weather that they took cold, which settled on their lungs? Hogs that are left out without any shelter will pile up one on another. And when they get up from their nest those in the middle of the pile will come out smoking hot. Now these, in cold weather, must unavoidably cool off too quick, and consequently take cold. Hogs that are to be turned on pasture in the spring should be fed enough grain through the winter to keep them in a good growing condition. If they are allowed to get down very poor, it will take them a long time in the spring to right up. Thus a great part of the improvement that otherwise might be put on them is lost.

The profit of keeping hogs over is derived principally from pasturing them through the summer. On good grass and clover they will thrive and grow without grain. Early spring pigs that are to be made into pork in the fall have to be fed almost entirely on grain. Salt and ashes mixed is a good thing for hogs. It should be placed where they can get at it when they want it. Never put salt in their feed or drink. Either late in the fall or early in the spring I shut up my young sows in a close pen, and nearly starve them for two or three days. Then I get a careful hand to spay them in the side. I seldom ever lose any. They get well in a short time. Treated in this way they make nice hogs for fattening.

Will some farmers who understand raising hogs please write and give their views on the above subject? D.

SAGACITY OF SHEPHERD DOGS.

Charles Hancock, the celebrated painter of animals, relates the following anecdote of some Scotch collie dogs:

I was once staying with Lord Kinnaird, at his seat in Scotland, when his lordship expressed a wish that I should see some of his prize sheep, which were then feeding, with some hundreds more, on the brow of a hill,

nearly three miles from the house. Calling his shepherd he kindly asked him to have the prize sheep brought up as quickly as he could. The shepherd whistled, when a fine old sheep-dog appeared before him, and, seated on his hind quarters, evidently awaited orders. What passed between the shepherd and the dog I know not, but the faithful creature manifestly understood his instructions.

"Do you believe that the dog will bring the sheep to us out of your large flock?" I asked.

"Wait awhile, and you will see," said his lordship.

The dog now darted off towards the sheep, at the same time giving a significant bark, which immediately called forth two younger sheep-dogs to join in the mission. Accustomed as I was to the remarkable sagacity of the collie dogs, I was amazed at what now took place. On one side of the hill was a river, on the other side a dense forest. One of the younger dogs, on arriving at the foot of the hill, turned to the left, while the other darted off to the right hand. The former stationed himself between the sheep and the river, while the latter stood between the sheep and the forest. The old dog now darted into the middle of the flock, when the sheep scampered right and left, but were kept at bay by the two watchers. The old dog speedily singled out the particular sheep desired, and in a few minutes the three dogs were quietly driving them towards us.

WHY SOWS DESTROY THEIR YOUNG.

A writer in the *Homestead* gives an article on this subject, in which he argues very conclusively that "costiveness and its accompanying evils are the main causes of sows destroying their young—and proper food is the preventive and cure." He says, and the fact is patent to thousands of pig raisers, that sows never eat their pigs when running at large, with plenty of green food, as in autumn, but with hardly any exceptions, sows littering early in the spring are troubled with costiveness, often very severely. This causes extreme restlessness, often almost frenzy, and the pains of labour increase it until they destroy their young or any living thing within their power.

"Green food is the cure." If sows are confined in pens at any season, and especially in early spring, they should have a daily supply of green food for some weeks before littering. Potatoes, sugar beets, carrots, parsnips and such like, are excellent—and a half peck per day is amply sufficient. If no roots are to be had, sulphur—a tablespoonful two or three times a week—may be given in their usual food, and charcoal is also beneficial. Sows should not be moved about from pen to pen at this time as it disturbs and irritates them—they should be put by themselves at least a month before littering, and used at all times with kindness and due attention to their comfort.

Corn and cob meal, or corn unground, is bad food alone for sows heavy with young. Sour milk, kitchen slop and vegetable food should be given with it, and for all swine it is to be preferred. In summer, with good clover pasture, pigs will do well without grain and every farmer should provide a proper pasture for his swine,

It has been stated that sows could be prevented from destroying their young by giving them rum sufficient to make them tipsy after littering. The preventive of green food would be far better for the animal, as well as of permanent benefit. Sometimes sows refuse to own their young, acting perfectly indifferent to their welfare. We have found this readily overcome by holding the sow, and allowing the pigs to suck once—after which she gave no further trouble.

SWINE BREEDING.

In our observation there has been more than the usual inquiry for good brood sows and superior boars this fall and winter. We find also the usual discussion as to the comparative merits of early or late pigs. Some good breeders arrange to have as many as possible of their sows drop their litters in the latter part of March or first of April. Others prefer to have the pigs, especially those from young sows, come in May. Personally, we do not approve of breeding young sows early. Better and stronger litters may be expected if the sows are, at the very least, a full year old when the pigs are dropped. In fact we grow more and more to believe in the superiority of mature breeding animals, both male and female. Breeding from young animals which have been "crowded" with stimulating food will probably tend to produce still earlier maturity, but at the expense of vitality, and often of size. There is greater apparent profit in selling the sows and boars after using them one season, but those which prove themselves superior breeders should, in all ordinary cases, be kept for at least a second year. With mature sows, and with a good place for them and the young pigs, there are many advantages in having the litters dropped early; and especially if it is expected to make sales of the pigs for breeding purposes, the early pigs are much to be preferred. But for the average farmer, with his not overly good arrangements, we have little faith in profit being made from early spring or late fall pigs.—*Breeder's Gazette, Chicago.*

SO-CALLED THUMPS IN SWINE.

Thumps is a name which we have seen applied to a variety of disease in swine. Thus, we have found, on opening pigs that were said to have died from "the thumps," that they died from pneumonia; in other cases we have found the term applied to quinsy, congestion of the lungs, and, in fact, to almost any form of disease in which the act of breathing is much accelerated. To use this term in the supposition that the ailment is similar to what is called thumps in the horse is wrong. In swine, the disease or diseases to which the term is applied generally proves fatal, whereas this is not the case in the horse. We are frequently asked to explain the causes of thumps in swine, and to prescribe remedies for the same; but, when neither the cause nor the disease in all cases are the same, it is impossible to give a proper reply.—*Breeder's Gazette, Chicago.*

SUFFOLK pigs fed with milk when first weaned have frequently been made to weigh 300 pounds at seven months old. The milk should be mixed with bran and oatmeal, and thus fed till a sufficient growth is attained to put on fat with cornmeal.

BEEES AND POULTRY.**THE FIRST "COMING BEE."**

The long, square, Dutch bees crossed with the long, slim, leather-coloured Italians are going to bring forth the first "coming bee," sure. There are two methods being worked out by which to produce the ideal bee. The one is long, persistent, and tiresome labour, together with patience and waiting, and its result actual improvement. The other method is one built up on an imaginary bottom. The first step of progress has been to represent an uncommonly common article in an uncommon way by giving it an uncommon name. This is a short cut—a quick way to arrive at the "coming bee." Upon receiving an advertisement of said bee, made by a cross of the "wide, brown, German bees" with the "long, slim, leather-coloured Italians" a novice would ordinarily receive the impression that the former race was imported from Germany and crossed with imported bees from Italy, never dreaming that his neighbour, just over the way, has the same kind of "wide, brown German" bees in box hives, known in early days as the common black bee, and that the cross—the "coming bee"—was called in those days hybrids, the very ones we have been in the habit of pulling the heads off, and dropping them in the grass, for the sake of progression. Noted queen breeders have used them for many years to fertilize their lawns. With over fifteen years' experience in bee culture, and having spent six or seven seasons in travelling, all the time handling black bees, we could never discover that there are two distinct races of black bees—a black, and a brown. We have observed that the black bees when full of honey and during a good honey flow have a brownish, distended appearance, and in all races the colour of the bee depends somewhat upon the temperature of the weather when they are hatched. The word "German" which is applied to the so-called brown race is a "hiflynuton" name which will send them off at a dollar apiece. The long, slim, leather-coloured Italians come from the same bee-keepers in Italy, that the short, buntly ones do. We never had any buntly ones, and never saw anyone who has ever seen anybody who ever heard anybody say that they had seen them—but very likely they exist as a separate race, for what would be the need of the name "long leather-coloured" if they were a myth.—*Bee Keeper's Guide.*

EGGS IN WINTER.

The fact that eggs usually command, during the last six weeks of the year, from forty to fifty cents a dozen, is good evidence that, as a rule, hens do not lay at this season of the year. It being the moulting season with the old hens, but few eggs can be expected from them, and the pullets, most of them, are not old enough to lay; so with ordinary care few eggs are got when they are most needed.

Those who best understand the business, manage to have their hens lay when eggs are the highest, and thus secure a large profit. This they accomplish by keeping hens but one year, and raising early chickens so as to get them to laying by the first of October. When this is done the chances are favourable to

keep them laying most of the time until February; but, to do this, the hens must have good winter quarters, plenty of air, light, and sunshine, and yet warm enough to keep them comfortable both day and night.

Fresh earth should be supplied in abundance, and the food should be in great variety. Grain alone is not sufficient; but they need meat and vegetables, including moistened fine hay or cabbage leaves. In the coldest weather the water should be warmed before being placed before the hens. Ground oyster shells should always be kept where the hens can get them, and wood ashes, with charcoal, should be in one corner of the house.

There is no animal kept on the farm that feels neglect so quick as a laying hen. Sometimes a neglect of a few days will stop a hen from laying several weeks. There is so great a difference between the price of eggs in December and in March, that it pays to make an effort to get eggs in the first part of winter.

It costs about the same to keep a hen a year that lays most of her eggs when they are the cheapest, as it does when they are the highest price; but there is a great difference in the worth of the eggs. Six dozen of eggs, at forty cents per dozen, would be \$2.40, while six dozen, at fifteen cents, would be but ninety cents—a difference of \$1.50, which would make a good year's profit. Yet the price of eggs is frequently more than forty cents in December, and less than fifteen cents in March.

Those who are the most successful in the production of eggs for profit, make it one of their principal points to have their hens lay the most when eggs are the highest, thus securing a very large profit on what they feed out.—*Mass. Ploughman.*

FEEDING BEES IN WINTER.

A correspondent in the *Germantown Telegraph* thus describes his method of feeding bees in winter:

In the first place let me say that I would prepare the feed in the shape of a syrup, thus: Take of pure clean water two pounds to four pounds of sugar; A coffee or extra C is best. Bring the water to a boiling heat and then add the sugar; stir well until it again boils, and skim off all impurities; then let it cool and fill up glass tumblers and tie cotton cloth over each, and turn them upside down over holes in the top of the hives, if of the old-fashioned box or gum log, and you will have the satisfaction of seeing the tumblers soon emptied and stored in the brood combs. If you are using a good movable frame hive you can feed your syrup in the top of it in the following way: Take some old bits of combs and lay in the surplus chambers, and pour the syrup over them, and the bees will take it all down. Feed as fast as they empty the glasses or combs referred to. We should feed all weak colonies late in an evening, which will prevent robbing in a great degree. If you use glass tumblers to feed from, I would recommend boxes to be turned over so as to keep robber bees out.

SHIPPING QUEENS.

It will be remembered that the shipping of queen bees by mail was prohibited by the postal authorities until two years ago, when it

was allowed, to the great advantage of beekeepers. Thousands of queens are now yearly sent by mail, and at very small cost. A queen may be sent from Maine to California for two cents. In granting the request, two conditions were required. First, the food must be candy, or some substance that could not possibly soil the mail, and second, the cages should be so made that no mail agent could be stung.

The last requisite is easily met in the double faced cages now universally used. The former was found more difficult. Candy is so dry that, if the bees are sent far, they are apt to die. Small tin phials of water have been added, with a very small hole from which the bees can sip. This did not violate the spirit of the law, as there were but a few drops of water in the phial, and this could not leak out of the small hole. But this method was not wholly satisfactory. Too often the queens died, if sent long distances. Within the last year a food has been made that is every way satisfactory. Granulated sugar is covered with extracted honey and, after draining for two days, the sugar is packed into a hole in the cage. This does not soil the bees, is moist and serves for the bees for many days, so that often, after a long journey by mail, there will not be a single worker bee dead in the cage.

ARE POULTRY PROFITABLE?

Farmers and others who keep poultry on a limited scale want to know whether it is profitable. To a large class of rural residents there is very little doubt that it does not pay to the extent that it might be made to do. To many the keeping of poultry is merely a matter of convenience, instead of a source of revenue, and many times the convenience is an inconvenience, for when eggs are wanted they seem to be scarce. In winter, especially, they are very scarce, as the rule. To obtain eggs plentifully in winter we must obtain and prepare the stock, and bring them into laying condition. Hens will not lay unless kept in good order any more than a cow will give milk without suitable food and care. They should not be too fat, but active; combs bright red, eyes sparkling; feathers close and glossy; in short their whole appearance should be lively and healthy. These essentials are best found in young stock. I imagine that the matter of what particular breed we keep has less to do with the question than the fact of care, if they are hardy and healthy. As stated above, the secret of winter laying lies in getting hens up in good condition first and then caring for them properly.

NOVEMBER and December, as far as fresh eggs are concerned, might be termed the barren months. If the early hatched pullets have been well fed and taken care of during the preceding months they will be ready to fill this vacuum. It is during this change from warm to cold that the fowls are so sorely tried. Fowls require substances containing lime. If fed on grains that contain it its absence in a natural form is not felt quite so much. Corn produces fat, while other grains go to make substances just as essential in another direction. Foods that supply albumen, as well as sulphurous extracts, are necessary for the perfection of the egg. Laying hens resort to lime and bones. Nature feels a need of these, as the drain of egg-production exhausts the supply, which must be renewed.

VETERINARY DEPARTMENT.

We will answer in this column any questions relating to horses and cattle which may be sent us.

TREATMENT OF PLEURO-PNEUMONIA.

M. J.—This disease appears under two forms, the contagious and the sporadic form. If the former your best way is to call the attention of the authorities to the fact that such a disease exists among your stock, and protect your animals and those of your neighbours from this fatal disease. If on the contrary you have a spasmodic case of acute pleuro-pneumonia your treatment must be according to the stage of the disease. Sedative at first in the shape of tincture of aconite and veratrum viride, followed later on by stimulants, as carbonate of ammonia, camphor tea and diuretics. It is more important for you to decide as to the true nature of the disease than to attempt to cure it. The services of a veterinarian must be obtained, as he will be then able to give you advice as to what to do. Contagious pleuro-pneumonia may be cured, but there is great danger of its affecting other cattle, and so-called recovered cases may become as dangerous as recent cases. The best way to get rid of them is to get rid of the diseased animal by having him destroyed, and thus remove all chances of infection.

APOPLEXY.

W. W.—What is the cause of the paralysis to which your cows succumb is difficult to say, as you do not give the slightest point on the subject. Ignorant of the cause, to give a remedy becomes a difficult task. Supposing, however, that this is due to a peculiar condition of the stomach or the bowels, the only treatment which can be recommended is as soon as the animal is found down and unable to get up to give a good dose of physic in the shape of Epsom or Glauber's salts one pound, and to apply over the loins blankets wet with warm water. As soon as the cathartic will operate it is probable that the cow will be able to get up. Tonics in the shape of capsicum, gentian or ginger mixed with nervous stimulants, such as nux vomica, will complete the cure.

CRIB-BITING.

D. W. D.—Veterinarians seem to disagree when the question is put to them whether crib-biting is a disease or merely a bad habit. By some it is stated that chronic disease of the stomach, an ulceration of the mucous membrane, will give rise to it, while many others say it is due to a bad habit that an animal will contract by seeing another do it, and again, for some outer reason that cannot be accounted for. Many means have been recommended, and by their use sometimes animals have been permanently relieved. The best way that has been found useful in our hands has been to regulate the diet of the patient by giving him food of easy digestion, and by taking away from him anything to which he could put his teeth. Placing him in a box-stall, and feeding him from the ground, prevents him from assuming the position necessary for cribbing, and by this way he will often lose and forget the habit. The treatment has, however, to be followed for a long time before an animal can be considered as cured.

HARD FEET.

E. H. C.—The fact of your horse's foot becoming hard and dry from standing in the stable is nothing strange, as long stabulation is one of the causes of this condition of the feet. It therefore becomes evident that your first precaution is not to allow your horses to remain in the stable without proper use. Sometimes, however, feet are naturally hard and dry in their nature. The application of external means becomes then a necessity.

Soaking the feet for a few hours at a time, the application of wet swaths or that of the various hoof ointments will also give relief. If you take equal parts of raw linseed oil and liquid tar, mixing them together by warming on a low fire and applying some of it twice a week with a paint-brush over the walls and soles of the feet it will be found that the hoof will become softer and resume its normal elasticity.

SKETCHES OF CANADIAN WILD BIRDS.

By W. L. KELLS, LISTOWEL, ONT.

THE BLACK AND YELLOW WARBLER.

The habits and habitation of this species are much similar to that of the yellow warbler, but its size is somewhat larger. Its colour is a beautiful yellow, interspersed with black spots. It builds a warm, compact nest in the fork of a willow, or other small tree that grows in low places. The eggs—four to the set—are whitish, mottled towards the large end with pale reddish spots.

THE BLACK AND WHITE CREEPER.

This species is four inches in length. The plumage on the back and wings is light black, crossed by bars of white, the lower parts are white, and the crown of the head has a red mark. Both birds are alike in colour. It feeds on insects, which it gleanes partly among the green leaves, and partly from the trunks of trees, which it climbs up and around by a creeping motion. Its song is a repetition of a few simple notes. It ranges the margins of woods bordering on swamps, where there is much fallen timber, and the vicinity of water courses where there is low brushwood. Its nest is placed in a bank formed by a turned-up tree, where it is concealed by dry leaves, moss, and the foliage of small twigs. The nest itself is formed of moss, fibres of bark, fine dry grass and hair. The eggs—four to the set—are white, dotted with bran-coloured spots.

THE BLACK-BACKED WARBLER.

The plumage of both sexes of this species is alike, being black on the upper parts and white beneath. Its length is between four and five inches. It frequents borders of woods, and partially cleared places near the margins of water courses, where there is thick underwood and creeping vines, and the land is high and rolling. It forms its nest of wool and fibrous matter, in a cluster of vines and among thick foliage, and lays two eggs.

THE WRENS.

This genus of small but very interesting birds, of which there are some five or six species regular visitants of Canada, seem also to be allied to the warblers in the great chain of ornithology. Two species, viz., the house wren, and wood or winter wren, are quite common in the central parts of Ontario during the summer months. In outward appearance these species closely resemble each other, but in habits they differ much. Another species—the long-billed marsh wren—is found only in such marshy places as the St. Clair Flats. Of the nesting or general habits of the other species I have no personal knowledge.

THE RUBY-CROWNED WREN.

This pretty bird is remarkable for the ruby,

or scarlet patch on the crown of the head. It appears to breed in more northern latitudes, and passes through this Province in its spring and fall migrations. Its song is very pleasant. It feeds on insects and larvae.

THE GOLDEN-CRESTED WREN.

This species, though about the same size and general colour of the ruby-crowned, is distinguished from it by a crest of orange-red, encircled by yellow. In other respects its habits seem to be similar.

THE LONG-BILLED MARSH WREN.

This species is five and a half inches long. Its colour is dull reddish brown above; under parts, and a mark over the eye, white. It dwells among the flags and other rank vegetation growing in marshes and other inlets to lakes. Here among the thick flags it builds a downy nest, mostly of cat-tail down and other fine materials. In this are deposited some six eggs of a deep chocolate-colour. The nest is generally only a few inches above the water-mark. It feeds on such insects as it finds in such places, and its periods of migration are the months of May and September.

OXCUSE THE DOG.

An agent for the sale of some household article attempted to mount the steps of a house recently, but the dog came around the corner and took a half yard of cloth from the back of his coat. The man was sliding out, when the owner of the house came and asked: "Did dose dog bide you?"

"He didn't bite me, but he ruined my coat," was the reply.

"My good friend, oxcuse dose dog if he didn't bide you. He is a young dog now, but by unt by he shall take hold of some agents ant eat der bones right out of dem. He bides a coat now, but he shall soon do petter."

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Going West.	Going East.
8 15 a.m. Leave Winnipeg	Arrive 6 05 p.m.
11 00 Portage la Prairie	3 15
2 30 p.m. Brandon	11 40
4 15 Oak Lake	10 20 a.m.
11 30 Broadview	3 00
7 00 a.m. Regina	7 00 p.m.
9 00 p.m. ar. Swift Current	1'0 7 00 a.m.
9 40 a.m. Leave Rat Portage	Arrive 4 03 p.m.
1 40 p.m. Whitesouth	11 25
3 25 Selkirk	9 50 a.m.
4 55 Arrive Winnipeg	Leave 8 45

8 15 a.m. Leave Winnipeg Arrive 4 10 p.m.
9 45 Arrive Stonewall Leave 2 30
Daily, except SunDays.

Going South.	Going North.
7 35 p.m. Leave Winnipeg	Arrive 7 00 a.m.
8 50 a.m. Otterburn	5 50 p.m.
10 25 a.m. Emerson	4 40 p.m.
10 40 a.m. St. Vincent	4 30 p.m.

Going South-west.	Going North-east.
Leave Winnipeg.	Arrive Winnipeg.
7 30 a.m. 17 30 a.m.	9 30 p.m. 14 30 p.m.
Morris.	
11 10 a.m. 111 00 a.m.	4 45 p.m. 112 25 p.m.
Femina Mt. Junc.	
112 45 p.m. 112 45 p.m.	3 40 p.m. 113 50 a.m.

Arrive 7 00 p.m. Manitoba City. Leave 17 35 a.m.
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Having a larger stock than is required at this season of the year, we have decided to sell all our

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You will find every pair sold by us to give entire satisfaction, as we keep no shoddy goods. We have the

Best Assorted Stock in the City.

We buy closer than any Boot and Shoe shop in the city; we keep better goods than any one in the city, and sell cheaper. Give us a call before going elsewhere, and convince yourselves of the fact that

If you only once but buy to try, You will ever after try to buy.

No trouble to show goods. We delight to show our stock, whether you intend to purchase or not. You will always find us polite and obliging.

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GOOD PAY TO AGENTS.

Agents wanted in every village, town and township, to make a thorough canvass for the RURAL CANADIAN. Liberal inducements. Work to commence at once. For full particulars address

G. BLACKETT ROBINSON,
5 Jordan Street, Toronto. Publisher.

The Rural Canadian.

TORONTO, FEBRUARY 1st, 1883.

AN APOLOGY

Is due our readers for the late appearance of the February RURAL CANADIAN. The pressure of Government work on the presses is the cause of the delay. The March number will be published about the 10th prox., and we hope to send forth succeeding issues on the first of every month thereafter.

THE demand for the January number of the RURAL CANADIAN far exceeded expectation. The impression printed off fell very much short of what was required. This will explain to those readers who failed to get a copy of that issue, why they have been disappointed. Arrangements have been made for printing a much larger impression of succeeding numbers, so that a similar disappointment may not be experienced. Increase in circulation is a gratifying proof that farmers largely appreciate a serial devoted to their interests. The knowledge that its merits are recognized will stimulate us to make the RURAL CANADIAN still more worthy of the favour with which it is received.

PATIENT EXPERIMENTERS.

The Germans are patient experimenters. A recent report gives the result of one of their experiments to show the fertilizing value of clover. An acre of clover sod was tested to the depth of ten inches, and the weight of stubble and roots was found to be 8,921 pounds. Further, it was found that this weight of stubble and roots contained 191 pounds of nitrogen, besides a quantity of potash and phosphoric acid. Doubtless the clover was a strong and vigorous crop; but the important fact is that it is rich in nitrogen, and therefore valuable for fertilizing purposes. It is, indeed, one of the most valuable of all fertilizers for wheat, for analysis shows that a wheat crop yielding twenty-five bushels contains about sixty pounds of nitrogen in the stem and grain. The knowledge of those two facts—of the large proportion of nitrogen in clover and in wheat—makes it clear that soil fertilized with clover may reasonably be expected to give a good yield of wheat. There is nothing of chance in farming; cause and effect are never divorced. And understanding the nature and operations of cause and effect, as we may by the studies of patient and intelligent experimenters, the business of farming may be made as safe and profitable as the elements will allow. The weather is almost the only cause not subject to the control by the ingenuity of man. It will always be a difficult matter to protect crops against the violence of storms or the extremes of heat and cold; but the injury done by these agencies is after all not a serious matter. The large majority of conditions are susceptible of being modified favourably; hence the importance of experiment and observation, and the application of knowledge so gained to practical ends. The knowledge of any number of facts in agriculture is only useful to the extent to which it is applied. Not one farmer in a hundred thousand has the patience to ascertain the weight of stubble and roots in an acre of clover and sod, nor the skill to analyze its component parts; but the one who has is a benefactor of his class and of the world. The value of underdraining was first proven by experiment.

OUR DAIRY INTERESTS.

Hitherto the dairy interests of Ontario have been confined largely to cheese-making, and Ontario cheese has a reputation second to no other in foreign markets. This is due in a great measure to the factory system, under which every improvement in utensils and in processes has been speedily adopted. The gain to the country is certainly large—not less than \$4,000,000 a year, and possibly a million more.

Now this is a result that we could never hope to attain under the old private dairy system. We could never, under that system, hope to produce either the

quantity or the quality, and without quality we could never establish a footing in foreign markets. Besides, if every farmer was his own cheese-maker there would be a great waste of time and appliances. The factory system possesses the great advantage of economy of production.

In this view of the subject we look with confidence to the success of the measure passed in the recent session of the Legislature for establishing public creameries. If properly managed these creameries cannot fail to teach useful lessons in the art of butter-making. Being under the control of the Government all useful information connected with their working will be officially published, and every essential data will be given as to cost of manufacture and value of product. Besides, they will be schools where whoever pleases may gain practical knowledge at the hands of competent instructors.

The cheese factory system is confined mainly to a dozen counties in the Province; consequently there is ample room for the creamery system without any fear of one conflicting with the other. There is no fear of the cheese interest suffering by a new impetus being given to the butter interest. The markets of England will take all the surplus we can ship there, providing the quality is satisfactory; and as lasting profits in any line of business depend on making only first-class goods the dairymen of Ontario know exactly what is before them.

We are quite sanguine of seeing the value of our butter product doubled before the close of this decade. The Hon. Harris Lewis, of New York State, is still more confident on this subject, for in an address to the Eastern Ontario Dairymen's Association he said:

"I presume that within two or three years you will take about the same position in regard to butter that you now do in cheese, for I understand that your Government has decided to establish three creameries for the manufacture of butter, and I have no doubt that they will raise the character of the butter you make very much, and that all the Province will feel their influence. They will, I am sure, add to the value of the butter you make at least \$1,000,000, and possibly two or three millions of dollars. I admire the position your Government has taken very much in this matter."

This statement by such an authority as Mr. Lewis is very encouraging. We trust, however, that the Government will take every precaution to establish the creameries on a well matured plan, and that the service of thoroughly competent persons will be secured as managers.

SEED CATALOGUES.

WILLIAM RENNIE'S SEED CATALOGUE for 1883.—Whether Oscar Wilde's visit to this continent has been a help or a hindrance to æsthetic culture, might be a fit subject for granges to discuss; but there is no doubt that our leading Canadian seedsmen are vying with each other as to who shall issue the most attractive seed catalogue. Happily, we are not called upon to award a premium for the best specimen of catalogues. Mr. Rennie's annual for 1883 is in advance of previous issues. The design for the cover is neat, artistic, and distinct. The contents are valuable to the farmer and gardener, and especially to the increasing numbers who engage in amateur gardening. All will find beyond a correct classification of seeds and plants much useful information. The catalogue will be kept by many for reference after its immediate object has been served.

VICK'S FLORAL GUIDE, 1883, not only contains a comprehensive list of plants, seeds and flowers, but interesting and accurate descriptions of a great number, not only of new and rarer varieties, but of those in which cultivators generally delight. The Floral Guide is profusely illustrated by most delicate, beautiful and accurate engravings, while the coloured prints are of surpassing excellence and beauty. If the possessor of a copy of this catalogue were to leave the page containing the frontispiece open in the summer season within reach of an apiary, bees would cluster around it, so true to nature is the bouquet with which the reader is presented.

J. A. EVERITT'S, Watsontown, Pa., ANNUAL CATALOGUE OF O. K. SEEDS is admirable in got-up and concise in contents. The design of the cover is original and striking.

RECEIVED—Lovett's Illustrated Catalogue (Little Silver, N. J.); Gregory's Annual Illustrated Retail Catalogue (Marblehead, Mass.); James M. Thorburn & Co's. Annual Descriptive Catalogue of Seeds (16 John Street, New York).

APPRECIATIVE WORDS.

From a number of kindly notices which have appeared in our exchanges, relative to the enlargement of the RURAL CANADIAN, we select the following:

ENLARGED AND IMPROVED.

FARMER AND FRUIT GROWER:—The RURAL CANADIAN comes to us this year enlarged to twenty-four pages, and otherwise improved. It is among the best of our exchanges, and has practical articles for farmers on this side of the lakes as well as those in Canada.

ONE OF THE BEST OF THE KIND.

COBourg WORLD, in noticing the January RURAL CANADIAN, says: "We are much pleased to observe the great success with which the publisher of this agricultural monthly is meeting in giving the farmers and others interested a journal well worthy of their patronage. Their paper is one of the best of the kind on this continent—every department being ably edited and well supplied with information of the most valuable kind. The family department is also most excellent. No farmer should be without this journal; and its price certainly places it within the reach of all."

AN AGRICULTURAL AUTHORITY.

BOBCAYGEON INDEPENDENT is pleased to style the RURAL CANADIAN the Agricultural authority of the Dominion.

"SO SAY WE ALL."

BROCKVILLE RECORDER: "An excellent paper."

We still want agents to push our circulation. Large commissions are paid.

PROTECTING THE OUTLET OF DRAINS.

One of the greatest annoyances in underdraining is the trouble arising from the outlet becoming choked or filled up by the trampling of animals, the action of frost or even of water at time of freshets. This trouble is quite successfully overcome, says a correspondent in the *Agriculturist*, by an arrangement consisting of a plank ten to twelve inches in width and five or six feet in length, with a notch cut in one side near the centre. This plank is set up on edge at the outlet of the drain with the notch directly over the end of the tile, and is held in position by several stakes on the outside with earth or stone thrown against the opposite side. The above plan is recommended for light, sandy soils. The following is advised for heavy clay lands. It consists of two logs eight or ten inches in diameter and from three to ten feet in length, placed parallel with the drain and about six inches apart; the whole is covered with plank twenty inches long, laid crosswise. Flat stones will answer in place of the plank. The whole is covered with earth at least eighteen inches in depth.

NOT MEASURED BY MONEY.

Mr. Robert E. Tomlinson has discussed most interestingly in the *Philadelphia Press* the trite question, "Does farming pay?" (about which there is no question) calling up from real life illustrative examples such as, happily, are within the knowledge of all observers. We make room for some of his thoughtful and suggestive points, which are well stated. The definition of "success" is a better one than superficial persons are able to give, and we especially approve the passing tribute to the wives and mothers of the farm:

"I have in my mind's eye a number of men (I use the term in a connubial sense, for if ever there was a pursuit in which the wife is truly the better half it is in farming) who started in agricultural pursuit with only a few hundred or a thousand or two of dollars saved, it may be, from their wages or the fruit of a small inheritance. In many cases this was barely enough to stock a farm and pay the usual one-third purchase money. But under the double spur of love of ownership and necessity of meeting their engagements, they bent every energy to free themselves from debt, and made their homestead entirely their own."

Brought up in the habit of strict economy, their children shared in the hardships of adversity, as they afterwards shared in the brightening prospects of prosperity. In this stern but hopeful struggle with the force of circumstances, the parents developed in mind and character, and filled their place among the most useful and honoured members of society; while the children, thanks to their early training, to free schools, and an educating press, became fitted for that

higher struggle which increasing civilization demands. Who shall say that these men and women, although they may have amassed only a few thousand dollars, have not, in the highest sense of the term, made farming pay and life a success?

"And still more than for the individuals, for our country have their lives been a grand success. The verse of the English poet is unfortunately too trite to quote, but true it is that intelligent, independent farming communities should be the pride, as they are the power and safety of a country. And especially will a large class, such as I have described, who by their birth, their lives, and their fortunes are identified with both the labour and capital of the country, do much to counteract the baleful effects of vast wealth and political power upon republican institutions."

Such suggestive paragraphs as these open a wide field for reflection on the conditions and influence of success worth striving for, and which is not to be measured by real estate standards or market estimates. "Man shall not live by bread alone."

FORESIGHT IN FARMING.

Every farmer should have a memorandum-book in his pocket, in which should be jotted down certain items of labour, whenever he may think about them. Then, when he may be hesitating as to what he or his employes can do advantageously during some pleasant day, the record of items will not fail to render him valuable aid. The farmer who does not take such thought for the future and plan operations for weeks and months, and sometimes for years ahead, will always be grumbling that his work is behind its appropriate season. Let me illustrate by experiences from real life.

A near neighbour was always at the tail end of the revolving seasons. During winter he would go several times with two horses and sleigh more than five miles to the grocery store to make a few purchases; and perhaps he would take two or three bagfuls of grain to mill. But, in spring, when the wheeling became about as heavy as possible, he could be seen dragging a heavy load of grain to mill to be ground for feed. Well, when the sleighing was excellent his grain was not threshed. By being behind, he sustained losses in several ways. Rats and mice destroyed bushels of his grain. His domestic animals suffered and grew poor for lack of the food and comfort which they should have received from the straw. If his grain had been threshed at the proper time a team would have been able to draw fifty bushels when the sleighing was fine, with less fatigue than they could haul ten bushels over muddy roads.

Another neighbour had commenced ploughing, but soon learned that the old stub of a plough-point could not be made to enter the hard places in his field, so he hurried off to get a new one. During the winter he had been to the city several times, when he could have purchased the share, and thus saved half a day, and ninety-five cents for his fare on the cars. Two weeks after his grass was fit to cut he took out his machine, but before he could start it he was obliged to go to the city to procure a new knife for the cutter-bar, which required another half day and ninety-five cents, besides other losses. By being "a day behind" he failed to get his hay ready for the barn in time to avoid damage incident to a drenching rain. Rain continued, and the weather continued lowering and unfavourable, until his crop of hay was rendered almost worthless for fodder. If he had not been behind hand that one day, which was spent in fitting up his mower, every pound of hay could have been secured in prime condition. The loss in the value of his hay by being damaged by a long rain amounted to more than forty dollars.

When the vernal seedtime had almost passed neighbour Tardy woke up to a sense of the propriety of sowing millet on a few acres. So he started for the city to purchase seed. But just before it was received at his station, a long period of wet weather set in, which rendered it necessary to defer sowing until the latter part of May. Sowing late immediately after a long period of wet weather, which was succeeded by a drouth, was the cause of a light crop. The reader can perceive, at a glance, how much one day in the winter would have facilitated the farming operations of that laggard farmer, and how many dollars would have been gained by way of a larger crop, if the seed had been purchased and been ready for the soil as soon as the

ground was prepared. "Take time by the hair," said Kosaath. "Forecast with care," say we all; remembering that the best returns are to those who keep a little in advance of the most appropriate period to plough, sow, cultivate and mow.

LOVE LIGHTENS LABOUR.

A good wife rose from her bed one morn,
And thought with a nervous dread
Of the piles of clothes to be washed, and more
Than a dozen months to be fed.
There were meals to be got for the men in the field,
And the children to fix away
To school, and the milk to be skimmed and churned;
And all to be done that day.

It had rained in the night, and all the wood
Was wet as it could be;
And there were puddings and pies to bake,
And a loaf of cake for tea.
The day was hot, and her aching head
Throbb'd wearily as she said—
"If maidens but knew what good wives know,
They would be in no hurry to wed."

"Jennie, what do you think I told Ben Brown?"
Called the farmer from the well;
And a flush crept up his bronzed brow,
And his eye half bashfully fell;
"It was this," he said, coming near,
He smiled, and stooping down,
Kissed her cheek—" 'twas this, that you were the best
And dearest wife in town!"

The farmer went back to the field, and his wife
In a smiling and absent way,
Sang snatches of tender little songs
She'd not sung for many a day.
And the pain in her head was gone, and the clothes
Whiter white as foam of the sea;
Her bread was light, and her butter was sweet,
And golden as it could be.

"Just think," the children all called in a breath,
"Tom Wood has run off to sea!
He wouldn't, I know, if he only had
As happy a home as we."
The night came down, and the good wife smiled
To herself, as she softly said,
" 'Tis sweet to labour for those we love—
'Tis not strange that maids will wed!"

Mount Clemens, Mich., February 7th, 1883.

FOR LOVE'S SAKE.

Sometimes I am tempted to murmur
That life is flitting away,
With only a round of trifles
Filling each busy day—
Dusting the nooks and corners,
Making the house look fair,
And patiently taking on me
The burden of woman's care.

Comforting childish sorrows,
And charming the childish heart
With the simple song and story
Told with a mother's heart,
Setting the dear home table
And clearing the meal away,
And going on little errands
In the twilight of the day.

One day is just like another!
Sewing and piecing well
Little jackets and trowsers,
So neatly that none can tell
Where are the seams and joinings—
Ah! the seamy side of life
Is kept out of sight by the magic
Of many a mother and wife.

And oft when I am ready to murmur
That time is flitting away
With the self-same round of duties
Filling each busy day,
It comes to my spirit sweetly,
With a grace of a thought divine:
"You are living and toiling for love's sake,
And the loving should never repine."

"You are guiding the little footsteps
In the way that they ought to walk;
You are dropping a word for Jesus
In the midst of your household talk;
Living your life for love's sake,
Till the homely cares grow sweet—
And sacred the self-denial
That is laid at the Master's feet." —Selected.

FUNERALS IN THE TIME OF CHRIST.

The touching Gospel account of the funeral procession that wound out of the gate of Nain,—probably down the steep road which now leads toward the ancient sepulchral caves west of the village,—as our Lord and His disciples came nigh, gives us probably the most familiar idea of the ordinary mode of committing the dead to their "long homes" in that day. First in order came the women, according to an ancient commentary of the Jews, which explains, that, as "women brought death into our world, she it is who ought to lead the way in a funeral procession." Among them,

how easy for any one, much more the Lord, her Maker, to recognize the widow, about to hide away forever from her eyes an only son. Behind the bier followed "much people of the city," and last of all the hired mourners and the musicians, with their distracting and discordant wailing and piping. According to prevailing custom, our Lord and His companions should have joined the procession, and wept with them who wept, or shared in bearing the burden of the open bier on which lay the young man, "the only son of his mother, and she was a widow." The apostle pauses in his record of this glorious miracle to emphasize the Saviour's compassion for this bereaved mother, whom he must comfort with a gentle "Weep not," though in a moment more He should place the dead son alive in her arms. May He not at that moment have beheld, as in prophetic vision, the sorrows of that Virgin Mother for the death of her only Son, of which Simeon was testified, saying, "Yea, a word shall pierce through thy own soul also?" (Luke ii. 35.)

It was contrary to the law that a high priest should attend the funeral, or observe any of the customary rites of mourning for any relative, not even for his father or his mother; the priest might be "defiled" for his mother, father, son, daughter, brother, and unmarried sister, but for no other relation in life. (Levit. xxi. 1-4, 10, 11.)

In the time of Christ it was the custom from the moment the body was carried out of the house, to reverse all chairs and couches, or seats of whatever sort. The mourners sat on the floor, except on the Sabbath and on one hour of the Friday, the day of preparation, and on some feast-days in which "mourning" was prohibited. On the return of the family from the burial with their friends, they were served by their neighbours with a symbolical refreshment in earthenware, consisting of bread, hard-boiled eggs, and lentils. The friends and funeral guests, however, partook of a generous meal, but at which the supply of wine was limited to ten cups. These "cups" may have been a relic of the ancient custom referred to in Jeremiah: "Neither shall men give them" (the mourners) "the cup of consolation for their father or for their mother" (xvi. 6, 7). An allusion to funeral banquets is supposed to be found in the circumstance after Abner's death, as recorded in this text: "When all the people came to cause David to eat meat while it was yet day, David swore, saying, So do God to me, and more also, if I taste bread, or ought else, till the sun be down" (II-Sam. iii. 35); and Jeremy, in his Epistle, speaks of the priests in the temples of idols, who "roar and cry before their gods, as men do at the feast when one is dead." (Bar. vi. 32.)

With the return from the grave began the formal mourning, when the passionate expressions of grief, loud and demonstrative, before the burial, were, if possible, redoubled and intensified. The prescribed season for deep mourning was seven days, the first three of these being those of "weeping," the others those of "lamentation." These being fulfilled, there followed a lighter mourning of thirty days or more, according to the nature of the bereavement. Under the Rabbis, children mourned for their parents a whole year. The anniversary of the death of a relative was also to be kept; while, for a season, the Jewish "prayer for the dead" (not, however, intercessory in its character) was to be offered. —From Mrs. Palmer's "Home Life in the Bible."

TIGHT LACING.

Mr. Richard A. Proctor, the well-known lecturer on astronomy, once tried the experiment of wearing a corset, and thus describes the result: "When the subject of corset wearing was under discussion in the pages of the 'English Mechanic,' I was struck," he says, "with the apparent weight of evidence in favour of tight lacing. I was in particular struck by the evidence of some as to its use in reducing corpulence. I was corpulent. I was disposed, as I am still, to take an interest in scientific experiment. I thought I would give this matter a fair trial. I read all the instructions, carefully followed them, and varied the time of applying pressure with that 'perfectly stiff busk' about which correspondents were so enthusiastic. I was foolish enough to try the thing for a matter of four weeks. Then I laughed at myself as a hopeless idiot, and determined to give up the attempt to reduce by artificial means that superabundance of fat on which only starvation and much exercise, or the air of America, has ever had any real reducing influence. But I was reckoning without my host. As the Chinese lady suffers I am told, when her feet bindings are taken off, and as the flat-headed baby howls when his head-boards are removed, so for a while was it with me. I found myself manifestly better in stays. I laughed at myself no longer. I was too angry with myself to laugh. I would as soon have condemned myself to using crutches all the time, as to wearing always a busk. But for my one month of folly, I had to endure three months of discomfort. At the end of about that time I was my own man again."

RECENTLY, at the Tuilleries, a printing machine was set in motion by a solar apparatus, and several thousand copies of the "Soleil Journal" were struck off.

A WIDOW in New Orleans has in her possession the original draft of the Constitution of the Confederate States. She loves it very dearly, but can be induced to part with it for the modest sum of \$30,000.

EX-SECRETARY BLAINE is said to be writing a political history, in two volumes, under the title of "Twenty Years of Congress—From Lincoln to Garfield. A History of National Legislation from 1861 to 1881."

THE Council of the British Association have decided that the decision to meet at Montreal next year was legally obtained, and does not contravene the rules of the Association. It will, however, take the general sense of the members upon the propriety of meeting in Canada.

JOHN JONES, a rich tailor of London, died lately, and left to the nation a very large and costly collection of oil and water-colour paintings, enamels, ceramics, gold and silver objects, furniture, etc., printed books, and silver work of great value. The collection is valued at about \$1,250,000.

THE HOMESTEAD—ITS ARRANGEMENTS AND SURROUNDINGS.

In the published report of the Agricultural and Arts Association for the past year, we find an excellent paper on the above subject, by Mr. David Nicol, of Cataraqui, Ont., from which we make the following extracts. The illustrations explain themselves:—

SITE OF DWELLING.

On ordinary sized farms, as they are generally laid out in Ontario, the homestead has to be erected somewhat convenient to the public highway, which sometimes leaves little choice for the selection of a site; and if the sunny side of a hill which is most to be desired is not available, a slight elevation can generally be had. But if the dwelling-house must be erected on ground which is nearly level, the earth dug out from the cellar can be made to form a gentle slope from the house every-way.

Sometimes dwellings are built on lofty situations under the flattering circumstances of a clear atmosphere and a wide prospect, but it is often at the sacrifice of shade and shelter, which are needed in unfavourable weather. The comforts of a habitation should not be sacrificed for the pleasures of looking out of the windows upon distant landscapes.

Another very common mistake is made in building too near the public road; a house crowding upon the highway loses all its dignity and home-like repose; let no site be chosen because of its proximity to the road, select if possible a place combining elevation, eastern and southern exposure, natural trees, a pleasant outlook on river or lake, if such is in the vicinity, and make all else conform to it.

The house should be planned with a view to the securing of comfort and convenience, rather than outward attractiveness; I have seen some farm-houses very elaborately designed, with many gothic gables, highly decorated with carved work and costly ornaments, presenting altogether a very gay exterior, but internally, very deficient in essentials; a plain substantial building is more suggestive of lasting pleasure. True beauty consists more in correct proportions and adaptability, than in tawdry ornamentation.

INTERIOR ARRANGEMENT.

The house inside should be arranged with a view to making house-keeping easy; good domestic helps are hard to be got, and they often detract from the happiness of the family, therefore it is of the utmost importance to the mistress of the house, that everything needed is made handy; the happiness of the farm-house depends very much upon the cheerfulness of the house-wife and if she is harassed with work and worried with household cares, it need not be wondered at if she becomes indifferent to the wishes and desires of others; a well-arranged, plainly furnished house, with a simple style of living, makes her light-hearted and hospitable; makes home pleasant and inviting.

Accompanying this is a design for a plain dwelling-house which could be made large or small according to requirements; there need not be so many fire-places as are indicated, if not desired, they could be dispensed with without altering the plan of the house; but the comfort and pleasure which the open fire affords me in winter causes me to recommend one for every large room in the Canadian home; they also serve as excellent ventilators.

The bath-room is placed near the kitchen so as to be easily supplied with hot water from the cooking stove, and cold soft water from the cistern which is under the kitchen; the waste pipe would join into the drain from the kitchen sink. The bath-room, although not a general accommodation, is a necessity in every

farm-house; the practice of using bath-tubs in the bedrooms has several objections, and in winter, outhouses are often too cold and mostly always inconvenient; and if the river or lake be used, it is only the male members of the family who can judiciously avail themselves of it, and that only in the summer time. To keep the whole body clean at all times of the year is a religious duty, and if there are to be but five rooms in the house, one of them should be a bath-room.

The kitchen, as placed on the design, can be thoroughly ventilated, so as to be as cool in summer as it is possible for a kitchen to be, yet warm enough in winter; the quite common practice of removing the cooking stove from the winter kitchen and back again is always attended with a deal of inconvenience. In the kitchen the sink is placed by the cistern pump; this is a matter which requires particular attention, unless there be a water-tight drainpipe leading from the sink to a cesspool at a considerable distance from the house. There cannot be a well of pure water near the kitchen, for a well receives the drainage from a distance several times the depth of itself; there is no doubt much disease is caused by the use of impure water for drinking and for cooking purposes; the clearness of the water gives no assurance of its purity; analysis has often proved that the germs of typhoid and other low fevers can be hidden in clear water; there should be no contaminating substance cast near the well.

The cupboard, which is placed between the dining-room and kitchen, with a door on each side of it, is a convenience, which, if once used, would never be dispensed with.

The sitting-room is large and well lighted, for as much of the leisure time is to be spent there, it should have in it a well-stocked library; there can be no class of people more benefited by reading than those engaged in agriculture. Part of this room could be appropriately used as a museum for preserved insects, dried plants, minerals, fossils, shells and stuffed birds, also philosophical and chemical apparatus, and other intellectual attractions. Homes furnished in this way would be productive of intelligent useful farmers, instead of idlers, spend-thrifts and horse-jockeys. No farm home is complete without these means of education.

The parlour and dining-room could be arranged with folding doors between, so as to be made into one large room on necessary occasions, by having the fire-place put to one side. Each bedroom has in connection with it a closet or clothes-room.

The windows of a farm-house should be large to admit plenty of health-giving sun-light; with the exception of diminutive chimneys, nothing looks meaner than small windows, and now, since glass is good and cheap, there seems to be no reason why they should not be large enough.

PRACTICAL HINTS.

Crowding other buildings upon the dwelling-house is a common error; we often see the carriage-house and sheds attached to and in line with the principal front of the dwelling-house, thus excluding any possibility of picturesqueness, for the sake of a convenience which should always be in the rear.

Another general mistake is painting with bright colours; soft and cheerful tints of lilac, rose, lavender, blue, buff, brown or gray are always far more pleasing to look upon. Especially is this so where an attempt is made at a landscape, even pure white does not contrast well with the green lawns in front, and the variegated foliage around, white soon becomes unsightly, showing every spot and speck; avoid bright colours, if you would have a picturesque homestead.

I have seldom seen a homestead with which

the proprietor was entirely satisfied. It would have been somewhat different, and a little more convenient, if it had been properly planned before building was commenced. There is a tendency with some to lavish large sums of money on splendid mansions, without in any way improving the surroundings; a man erects a dwelling at an expense of several thousand dollars, but thinks it an outrageous imposition, if asked to lay out some hundreds in improving the grounds, planting shade and ornamental trees, etc., this is an egregious error; there can be little beauty where there is such a want of harmony. Property can be highly improved, and its value largely increased at a comparatively small cost, provided the improvements are carried into effect under the direction of a man of taste and understanding; otherwise it is highly probable that costly operations will but excite disgust. Much artistic display should be avoided, because it involves a deal of labour at a time when labour is much needed on the farm, it is folly to have a place artistically laid out unless it can be properly kept in order; there is always difficulty in making domestics and children keep everything in such order and regularity as is desirable, for without cleanliness and order, confusion will soon prevail; with economical expenditure of labour, the grounds around a farm home can be made to look well without the entailing of a large annual expense.

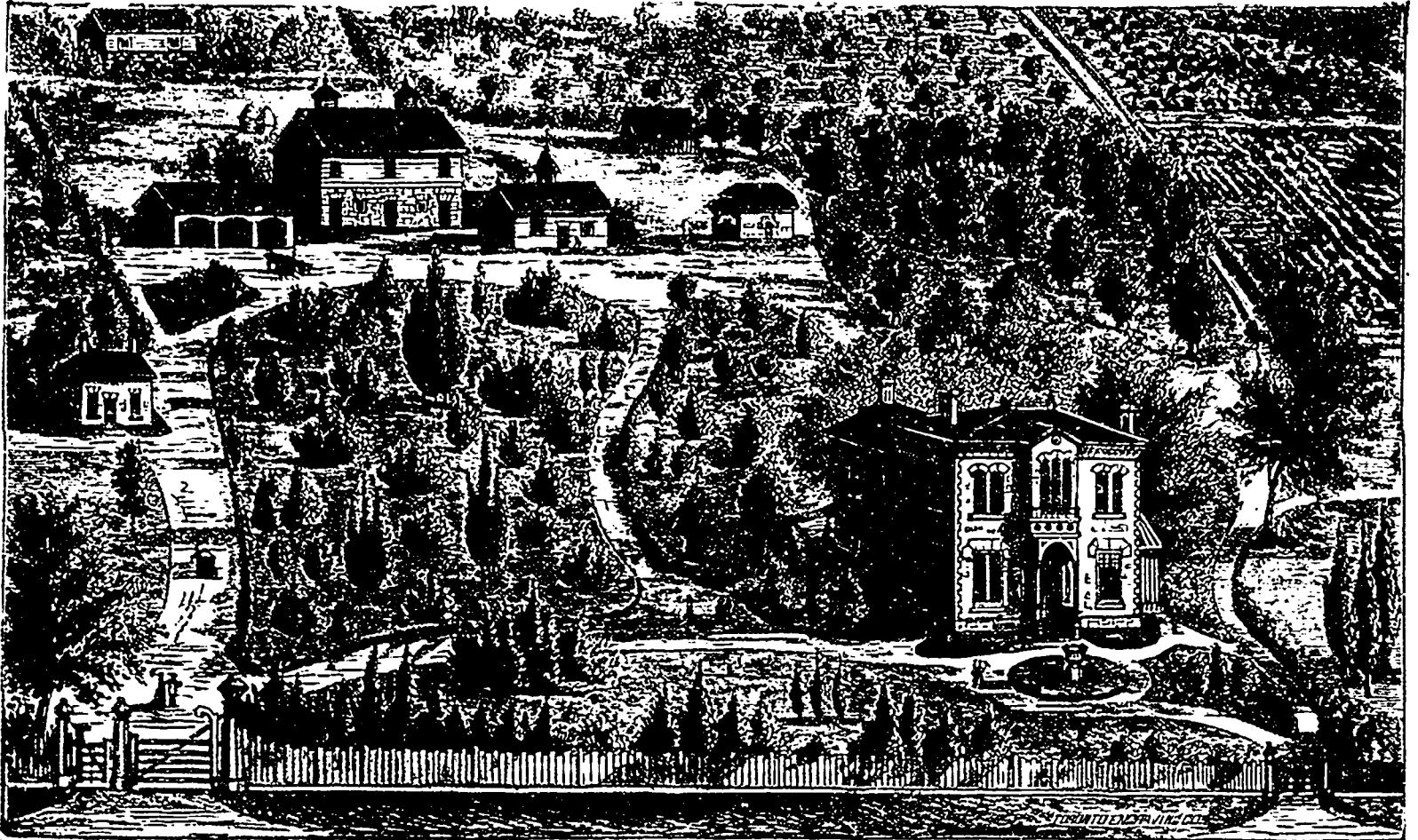
The accompanying design may furnish some suggestions to intending builders:

The house is placed far enough from the public road so as to admit of a good lawn in front. The barn, in the basement of which is the cattle stables, is at a convenient distance from the house. The horse stable which has in connection with it a harness-room, and the implement and waggon house, which has over it the work shop, are placed far enough apart from each other, and from the barn, so that in case of fire some of the buildings might be saved. The sheep barn is placed convenient to the root-house, which is in the basement of the barn. The granary is near the roadway to be easy of access; the dairy is about half-way between the dwelling-house and barns, and the piggery, which should not be in connection with any other building where animals are kept, is near the orchard, because it is there the pigs should be allowed to pasture in summer, and should be far away from the dairy because of the foul odour and of the flies which gather about it.

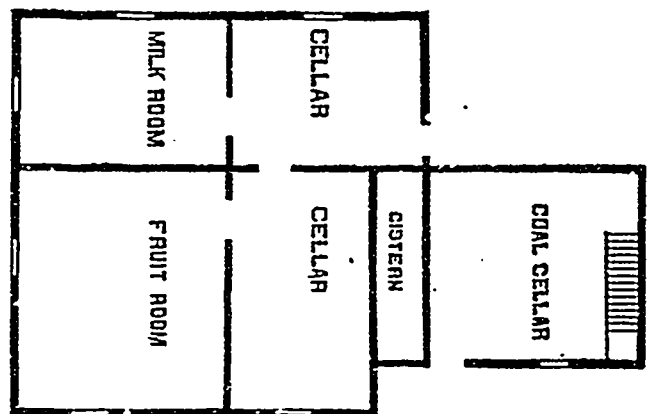
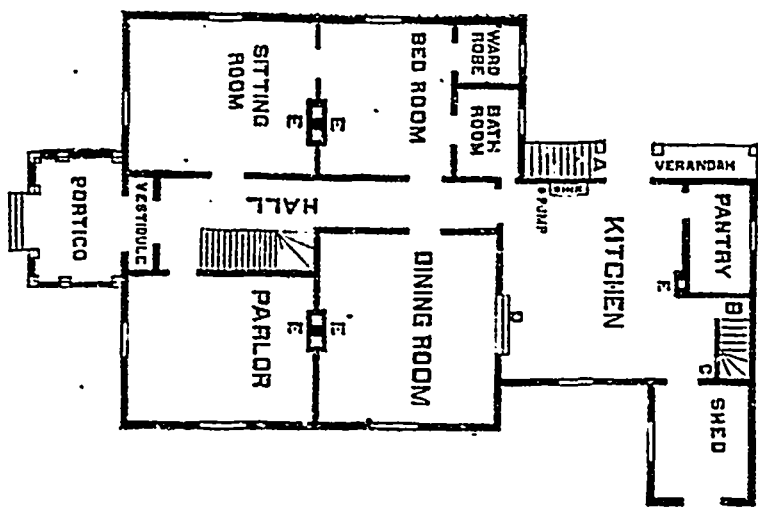
There might be economy in building, as is urged by some, in having all those accommodations under one roof; but it would certainly not be practicable.

A workingman's cottage is near the stables so that the man could the more easily attend to the animals under his care. It is wise economy to have good cottages for farm labourers, and employ married men who board at home; men who are steady and reliable, will stay longer in a place where they have good dwellings; then they become familiar with the work, and take more interest in their employers business, and are worth more than men who are changing places every season; besides, farmers' wives should not be required to keep a boarding-house for working men, they generally have enough to do without it, and it detracts from the comforts, and interferes with the privacy of the farm home.

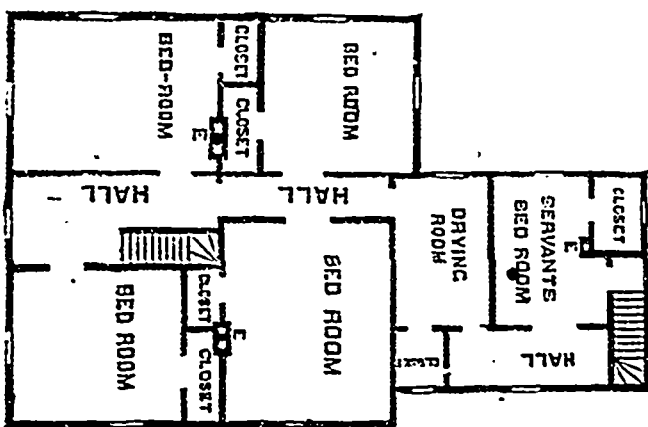
It is stated by *The London Provisioner* that the majority of the large number of milk-supply organizations projected abroad during the past two or three years either have been failures as conceptions or in actual working. "A fresh field that looks calculated to yield further harvest of disappointment seems waiting for cultivation in the shape of dairy farming companies."



BIRD'S-EYE VIEW OF HOMESTEAD.



- A—Stair to cellar entrance.
- B—Stair to servant's bedroom.
- C—Entrance to coal cellar stair.
- D—Cupboard, which opens into both dining-room, and kitchen.
- E—Fireplaces.



PLAN OF DWELLING-HOUSE.

HOME CIRCLE.

DOT.

A STORY OF THE FRESH AIR FUND.

"It's a harum-scarum idea!" said Miss Reliance Roxbury, as she stood amongst the current bushes at the garden fence. "A most ridiculous idea! I wonder what this gushing American people will do next!" And she gave an emphatic twitch to her purple calico sun-bonnet.

There was a faint murmur of dissent from a little woman on the other side of the moss grown fence.

"No—of course you can't agree with me," continued Miss Reliance, as the clusters of ruby and pearl flow into the six quart pail at her feet. "You're so soft-hearted that your feelings are forever running off with your common sense. You never say a word about the national debt, or the condition of our navy, but let anybody start a subscription for sending blanket shawls to Brazil or putting up a monument to Methuselah on the meeting house green, you'll give your last quarter. And now, you're going to open your house to a lot of little ragamuffins from New York?"

The motherly brown eyes on the other side of the fence were full of tears, and a pleasant voice replied:

"It makes my heart ache to think how the poor things suffer crowded together in dirty streets, with never a breath of clover field or a glass of milk. If you'd just read about it, Reliance, you'd count it a blessed privilege to give them a bit of our sunshine."

"I'd as soon have a tribe of Zulus on the place," said Miss Reliance, "and if you'll take my advice you'll save yourself lots of trouble."

Mrs. Lane stopped her work for a moment and said:

"Liakim and me are all alone now, Reliance. One by one we've laid Kate and Sarah and baby Lizzie over there in the old burying ground; and Jack is in Colorado, and Richard in Boston, and we get hungry sometimes for the sound of little feet. When I began to read about the Fresh Air Fund it kind of sent a thrill all over me, and Liakim he reads about it every day, before he ever looks at the Egyptian war, and he wipes his glasses pretty often too. Then when we heard the parson say that a party would come here if places could be found for 'em, Liakim spoke right off for four, and they'll be here next Tuesday, and I'm going to make it just as much like heaven as I can."

"You'll make yourself sick, that's what you'll do, Amanda Lane," replied Reliance, "but if you want your garden overrun, and your silver spoons stolen, and your house full of flies, and your nerves prostrated, why it's your own fault."

Miss Roxbury went up the path between the sunflowers and lily-hocks, entered the large sunny, airy kitchen and set down the currants for Hannah, the house maid, to pick over. Then she hung the purple calico sun-bonnet on the nail that for forty years had been dedicated to that purpose, and went into the cool sitting-room to rest in her favourite chintz covered rocker. Miss Reliance Roxbury had been for twenty years, with the exception of a gardener and house maid, the sole occupant of this stone dwelling that had stood for more than a century beneath its elms and maples the pride of the village of Lynford. She was a stern woman who liked but few people, and had a horror of children, dogs and sentiment. The village boys, with a keen perception of her sympathetic nature, called her "Old Ironsides."

She was proud of her birth and the substantial property that had fallen to her at the death of her father, old Judge Roxbury. She was a member of the Presbyterian Church, and paid high rental for the Roxbury pew, but with that considered that her pecuniary obligations to the cause were at an end. As a general thing she had not allowed convictions on the subject of giving to trouble her, but somehow, ever since Sunday, when the pastor stated the work of the Fresh Air Fund, and made a fervent appeal for "these little ones that suffer," she had been subjected to numerous vague but uncomfortable sensations. She rocked back and forth in the spacious sitting room that no fly dared to invade, and noted the perfect order of the apartment. From the china shepherdess on the mantel, to the braided rugs at the doors, everything occupied the same position as in the days of Miss Roxbury's girlhood. There was torture in the thought of having the table cover pulled away, of seeing the shells and prim old daguerrotypes disarranged on the whatnot, of having sand tracked in by small feet over the faded

Brussels carpet, and her pet verbena bed invaded by eager young fingers.

Surely religion and humanity could not demand such sacrifices of her.

"Please, ma'am, the currants is to be put over," said Hannah, at the door.

Miss Roxbury rose at once, glad of another channel for her thoughts, but amid her weighing and measuring, and her careful calculations of pints and pounds, the strange impression did not leave her mind. After the rich crimson syrup had been poured into the row of shining tumblers on the table, she returned to her chintz-covered rocker and took up the Bible to read her daily chapter. Opening it at random, her eyes fell upon these words:

"Then shall He answer them saying, 'Inasmuch as ye did it not unto one of the least of these ye did it not unto Me.'"

Miss Roxbury read no further on that page, but hurriedly turned back to Chronicles, which she felt was perfectly safe ground. But mingled with the long genealogical tables she saw other words between the lines, so that the Israelitish records read thus:

"The son of Elkanah, the son of Joel, the son of Azariah. ('Ye did it not.')

"The son of Tanath, the son of Assir, the son of Ebiasaph, the son of Korah. ('Ye did it not.')

Finally the whole page seemed to resolve itself into these four monosyllables.

She closed the Bible and put it in its accustomed place on the table, bounded on the north by a lamp, on the south by the match-box, on the east by Bunyan's "Pilgrim's Progress," and on the west by a bunch of worsted roses under a glass case. She was restless, miserable, tormented. She endeavoured to read the "Life of Napoleon Bonaparte," but even the thrilling story of the Russian campaign was lacking in interest, compared with her own inward conflict between duty and the old selfishness of a lifetime.

She did not enjoy her dinner, although the butter-beans were from her garden, and the black raspberries were the first of the season.

She could not take her accustomed afternoon nap, and for the first time in years the *Daily Tribune* lay unopened. She even put it out of the way in the china closet. A wonderful new design in patchwork known as the Rocky Mountain pattern could not fasten her attention.

She ordered the horse and rockaway and drove four miles after wild cherry bark, for which she had no need as her garret was already a great herbarium.

At least the dreary day came to its close, but was succeeded by an equally uncomfortable night. Amid frequent tossing and waking, Miss Roxbury dreamed of thin little hands stretched out to her in piteous appeal, and a sad wonderful voice that said with infinite reproach:

"Ye did not."

The Rev. Joseph Alder was surprised soon after breakfast the next morning by the appearance of Miss Reliance Roxbury at the parsonage porch. She brought a basket of raspberries, and said:

"I won't come in this time, thank you. I just want to say I'll take one—one of those children."

II.

"Mamma, is it mornin'?"

"No, Dot; go to sleep."

The child turned restlessly on the miserable straw pallet in the corner of the small, hot room. It was after midnight, and in summer, but there was a fire in the stove, for the woman at the pine table was ironing by the light of a glimmering tallow candle.

There was no breeze, but in at the open window came stifling, poisonous odours.

Pale and faint, the mother bent over her work, and smoothed the dark calico dress as carefully as if it were the finest muslin and lace. She had worked from early dawn until dark at her daily task—button holes at four cents a dozen. A cup of tea and crust of bread had been her sustenance. For Dot there was a bun and an orange.

The dress was finished and hung on the only chair in the room, with several other small articles. A hat of coarse white straw, with a blue ribbon twisted around it, a pair of bright stockings, a tiny handkerchief with a bit of colour in the border. All were pitifully cheap in texture, but dear in patient toil and loving sacrifice. Dot was going to the country for two long, blissful weeks, and the mother could cover the expense of the meagre outfit by some extra depriva-

tion during the child's absence. She turned toward the pallet. Dot's violet eyes had opened. Her golden curls were tangled by the tossing of the little head on the pillow. Her thin, pinched features were flushed with feverish excitement.

"Mamma, is it mornin'?"

"No, darling."

The woman blew out the light and threw herself on the pallet. Tiny fingers crept eagerly into her palm.

"Mamma; tell me more about it," pleaded Dot.

"Darling, it is years and years since mamma saw the country, but it was just as I've told you. Wide, clean streets, with big trees and blue sky and flowers."

"Oh, oh!" murmured Dot, "Does you 'spose they'll give me one f'ower, mamma? I found one on the street once—a 'ittle w'ite f'ower. A lady dropped it."

"Yes, dear, you'll have all the flowers you'll want, don't talk any more to-night."

The sky was already white with the dawn. The mother did not sleep. As the light of another day of misery crept into the room, she raised herself on one elbow and looked long at her child, resisting an impulse to snatch it to her heart, then softly rose, and after bathing her face and hands and kneeling in prayer for endurance, took her work and sat down by the narrow window. A few hours later she stood amid the bustle of the Grand Central depot with Dot clinging to her dress. A crowd of wondering, expectant children were being marshalled into line to take their places on the eastward-bound train.

"Come," said the kind gentleman in charge, to Dot. Dot kissed her mother "good-bye," and laughed even while the tears ran down her face, as she entered the ranks of the odd procession.

"Oh, sir!" said the mother, as she turned away, "take good care of my baby. I've nothing else in the world."

III.

There was an unusual stir in the village of Lynford. The railway station was thronged with people, and surrounded with vehicles awaiting the afternoon train.

The Rev. Joseph Alder and the ministers of sister churches conversed together on the platform.

"A glorious charity!" said the Baptist minister, raising his hat to wipe the perspiration from his brow.

"I expect that these poor children will be a great blessing to our people," said the Methodist minister, "in broadening the sympathies and warming the hearts of some who have been oblivious to all interests save their own."

"Yes," replied the Rev. Mr. Alder, "I have a practical illustration of that, not a stone's throw from where we are standing."

The "practical illustration" consisted of the Rockbury rockaway drawn up amid the other conveyances, with Miss Reliance on the back seat, in a state of mind in which newly-fledged philanthropy struggled with a terror of ragamuffins. She had come to the conclusion that her visit to the parsonage had been made during an attack of mental aberration; but the word of a Roxbury was as immovable as the historic granite on which Zephaniah Roxbury stepped from the *Mayflower* in 1620, and the last representative of the race would not falter now, although seized with dire apprehension whenever her eyes rested on the verbena bed.

It was with a grim determination to brave the worst, that she awaited the train that afternoon, but when the locomotive appeared on the bridge below the village, the thought of the dreadful boy who was coming to invade her peaceful domain nearly overcame her, and her impulse was to order the hired man to drive home as quickly as possible. She could appreciate the emotions of a Roman dame at the approach of the Vandal.

As the train stopped at the station the people crowded forward to welcome their guests. Miss Roxbury peered anxiously from the rockaway. It was not a very appalling sight. A group of pale little children, tired, dusty and bewildered. Many eyes overflowed as the train moved on, and left these wistful faces, pinched by want and misfortune, in the midst of the kindly villagers.

"Here, Miss Roxbury, here is a wee lamb for you," said Mr. Alder.

Miss Roxbury had not observed his approach in the crowd, and gave a start of surprise as he stood before her. As she looked there was a curious sensation under the left side of her crape shawl, and her cold eyes grew misty.

The "dreadful boy" had changed into a tiny girl of

six years, as frail as a snowdrop, whose coarse attire could not mar the loveliness of her dark violet eyes and hair of tangled sunbeams. The little creature stretched out her arms to Miss Roxbury, who reached forward and took her into the rockaway, the ancient springs of which creaked with astonishment.

"What is your name?" said Miss Roxbury, feeling strangely awkward as they drove along.

"Dot," said the child. "You hasn't kissed me yet, has you?"

Miss Roxbury bent and kissed the child. The rockaway creaked louder than before. The touch of the child's mouth thrilled the iron nerves of the woman with a sensation inexpressibly delightful.

Miss Roxbury had imagined her life to be a happy one. She now discovered that she had mistaken selfish isolation for happiness. She was beginning to be happy the first time in fifty years. Dot was too tired to be very talkative, but she leaned against Miss Roxbury with a look of quiet wonder and content in her eyes.

"Is I goin' to stay here?" she asked, as the rockaway stopped at the Roxbury gate and she surveyed the old stone house with woodbine clamouring over its grey walls.

"Yes, child."

Dot's face grew luminous. A bath, a bountiful supply of bread and milk and a walk in the garden kept her joyful till twilight, but with bedtime came the longing for the mother.

"I want my mamma—my own mamma," she said.

Then Miss Roxbury gave full vent to the instinct that can never be utterly destroyed in a woman.

Taking the child on her lap she caressed the white face and sunny curls in a restful, soothing way, and talked so cheerfully that the shadows fell from the violet eyes, and Dot, nestling close, said, "I love you."

Miss Roxbury not only begun to be happy; she had begun to live. With the coming of this sweet child heaven was changing the dull prose of her existence into celestial rhythm. Her cold, loveless nature in the presence of this tiny girl was already becoming Christ-like in its tender mercy.

Dot offered her evening prayer and was put in Miss Roxbury's own stately bed.

"Good night, dear," said Miss Roxbury with a kiss.

"Good night," said Dot, burying her face in the great bunch of white roses she had brought to bed with her. "I feel zif I'd died an' gone to heaven."

Miss Roxbury passed a wakeful night, but not a restless one. Her mind was filled with plans, and then it was such a pleasure to lie and listen to the soft breathing at her side, and occasionally to touch her little hand on the counterpane, still holding the treasured roses.

The next day Dot ran nearly wild with delight. She revelled among the daisies in the deep soft grass, and it was pitiful to see how small an object could charm her hungry mind. God's commonest gifts were unknown to her in bounty and purity. Sunshine, sweet air, flowers and bird songs were enough to make her happy, and when she found the brook that danced across the meadow her delight was unbounded. After a day or two Miss Roxbury took the morning train down to Bradleyville to do some shopping. She was gone until night, and all the way home she thought of the glad voice that would welcome her, and her face grew so radiant with the new joy in her soul that when she alighted at Lynford station, old Deacon Bennett failed to recognize her until she had passed him.

"Wall, I declare," he said, "Reliance looks as if she had discovered a gold mine."

Miss Roxbury reached home and soon had the "gold mine" in her arms.

After tea the parcels had to be opened. There was paper patterns, rolls of muslin, embroidery and blue flannel, a pair of child's slippers, dainty hose, bright ribbons and a large doll.

"Oh, oh, oh!" was all that Dot could say, but her tone expressed more than the most extensive volume of philanthropy that was ever written. The village dressmaker was installed in the house for a week. The Rocky Mountain patchwork was consigned to the seclusion of the spare room closet, and Miss Roxbury developed a taste in Mother Hubbard's dresses and ruffled aprons that was truly marvellous.

In the meantime she wrote a letter to Dot's mother, in which Dot added the picture of the cat, which, although not absolutely true to nature, resembling in

fact the plan for a house, was a great satisfaction to the young artist. There came no reply to this letter.

Dot's cheeks were getting rosy and her step buoyant. "If it wasn't for mamma," she said, "I wouldn't want to go back forever'n ever."

When Mr. Knox, the gentleman in charge of the party, called to see that Dot would be ready to return at the appointed time, Miss Roxbury exclaimed almost fiercely:

"I can't let her go. I need her. Why may I not keep her?"

"I do not believe her mother would part with her," said Mr. Knox.

Miss Roxbury was silent for a few moments, but looked out on the lawn where Dot was swinging in a hammock with the doll and cat.

"It will be a dull house without the child," she said; "but I will bring her to the station."

IV.

When the morning of Dot's departure came, Miss Roxbury arrayed herself in her second-best black silk, put a few articles in a satchel, filled a small basket with fresh eggs, new biscuit, a pot of butter and a bottle of currant wine, and said to Hannah:—

"I may be gone two or three days. Have the east chamber thoroughly well aired and dusted before I get back, tell Hiram to take a peck of peas down to Mrs. Alder, don't forget to see if those canned strawberries have worked or not, and be sure the front door is kept bolted, and put the last brood of chickens in the other cop, and keep a newspaper over the geranium slips in the afternoon."

"Yes, ma'm."

"And, Hannah, be very careful to keep out the flies, and tell Hiram to fix the well-curb. He is so apt to forget things."

Dot was bathed in tears as she mounted to her place in the rockaway.

"Isn't I comin' back?" she said.

"I hope so, dear," replied Miss Roxbury, who appeared preoccupied and anxious and scarcely heard Dot's chatter on the way to the station.

"Why, Miss Roxbury," said Mr. Alder as he assisted her to the platform, "you are a veritable fairy god mother. This rosy, dainty maiden cannot be the same bit of humanity that I held in my arms a fortnight ago. You will miss her, will you not?"

"I shall go with her to New York anyway," said Miss Roxbury, "and I don't mean to come back alone, either. Mr. Alder, I hope God will forgive me for the empty house I've had all these years."

"An empty house means a lonely heart," he replied. "And I am glad you are going with the child."

That afternoon Miss Roxbury and Dot, attended by Mr. Knox, wended their way through a dark alley in one of the most squalid districts of New York city, and climbed flight after flight of rickety stairs in a rear tenement.

The heat, the filth, the scenes of misery were indescribable. Miss Roxbury felt as if she was on the confines of the bottomless pit.

Dot darted down a long passage and disappeared in a room beyond. The friends followed and beheld her clasped tightly in the arms of a wan figure that lay on a pallet. The woman had fainted.

"Mamma, mamma, look at me!" pleaded Dot, and began to cry.

There was no water in the room, and Mr. Knox took a cracked pitcher from the shelf and went with Dot in search of some. Miss Roxbury knelt beside the woman, who was only about thirty years of age, and been very attractive as a young girl. There was a gleam of gold on her left hand. Her hair was sunny like Dot's, and her features delicately shaped. This letter that Miss Roxbury had written lay crumpled and tear-stained on the pillow.

While Miss Roxbury gazed the woman opened her eyes. They were beautiful eyes, but sad with want and a struggle against despair. She tried to sit up and moaned:

"My baby—please give me my baby?"

Just then Dot returned and carried the pitcher of water to her mother, who drank long and eagerly, then holding out her arms to Dot, said feebly to Miss Roxbury:

"O madam, will you take care of my little girl? I think I am going to die."

"You are not going to die—not a bit of it," said Miss Roxbury, pouring some wine into a teacup, "but I'll take care of you both. There, drink this and you'll

feel better right away. How long since you've had anything to eat?"

"Day before yesterday," was the faint reply. "I had to stop work four days ago."

"Now, Mr. Knox," said Miss Roxbury, slipping her purse into his hand, "just stop out to the nearest grocery and order some kindling wood, tea and sugar. I'll poach a nice fresh egg for this poor soul, and we'll see about getting her out of this place."

The woman's face brightened, but she said, "I'm giving you much trouble."

"Trouble," said Miss Roxbury. "I'm all alone in the world, and I've a house with twenty-four rooms in it, and plenty to do with, and what I've been thinking of all these years I can't say. I've been a crusty, cold, disagreeable old fossil, Mrs. Winthrop, and when I come down here and find folks starving to death, and crowded like cattle, I wonder the good Lord's had any mercy on me. Don't you worry another mite. Here's the first stuff already."

Miss Roxbury rolled up her sleeves, put an apron over her silk skirt, and while Mr. Knox built a fire and brought water to heat, bathed Mrs. Winthrop's face and hands and brushed out her hair.

"Thank God! why I'm better already," said Mrs. Winthrop, with a rare smile.

"Of course you are, child," said Miss Roxbury. "We'll see what good food and mountain air will do for you yet."

A few days later found an occupant in the great east chamber of the Roxbury house.

Mrs. Winthrop sat in an easy chair before the open window inhaling the blossoming honeysuckle that nodded to her through the casement.

The morning sunlight fell across her bright hair and peaceful face.

Dot hung over her shoulder and threw daisies in her lap.

Down by the garden fence stood Miss Roxbury talking with her neighbour, Mrs. Lane.

Mrs. Winthrop smiled from her window, and there came an answering smile from the depths of the purple calico sun bonnet.

"So you're really goin' to keep 'em," said Miss Lane.

"Yes, I've adopted both of 'em," replied Miss Roxbury, with a *Te Deum* in her voice, "and I've sent for half a dozen little girls to stay until cold weather."

"Well, it does beat all," said Mrs. Lane, wiping her eyes on the corner of her checkered gingham apron, "I s'pose I needn't ask you now, Reliance, what you think of the Fresh Air Fund?"

"What do I think of it!" said Miss Roxbury gravely. "I believe it's been the means of saving my soul. I should have gone into the next world holding my head pretty high, and considering myself better than most folk, and the Judge would have said, 'Reliance Roxbury, I gave you a large house and a long bank account. What have you done with them?' Then how my empty rooms and Grandfather Roxbury's gold pieces would have stood up against me! And he would have said, 'Ye did it not unto me. Depart from me,' and what answer could I have made him? It is very true," she continued, as Dot came flitting down the pathway like a fairy, "'of such is the Kingdom of Heaven.'"

A CALM MAN'S EXPERIENCE IN HIS COFFIN.

BY HERBERT NEWBURY, IN THE BOSTON CONGREGATIONALIST.

The trains collided. I am a calm man. I confess I was startled; but resigned myself manfully, and was calm. I got a thump on my spine and the back of my head. I lay beside the railroad track amid the dying and the dead. I felt pretty well, quite sensible and rational, was not in pain, but I could not move. Even my tongue refused to stir. My body seemed dead, my mind and spirit were in full life. "Remarkable state," calmly reflected I, "wonder what will come of it!"

What came? A doctor came. He chucked me under the chin, turned me the other side up and back again, put his ear to my chest, got no response, muttered, "Dead! Fatal blow on the head and spine," and considerately gave his best attention to the living. I am not only a calm man, but a just. I did not blame him, but inwardly remarked, "My situation is disagreeable—very."

I lay with the unclaimed dead a long while; yet not

perhaps very long, for I remember that I calmly reasoned even then: "Time naturally moves slowly in such unpleasant circumstances; my friends will inquire for me when the railroad disaster is known." They did, and I heard snatches of conversation respecting myself as follows: "John Harkoe was on the train!" "What was he West for?" "Dead!" "Telegraph back to family." "Charming young wife. Fine baby boy. Hope he leaves them comfortable. Shocking intelligence for her." "She is young and will soon get over it."

My calmness was tried, but I soothed me by reminding myself that I, who loved my Amy most, should least regret that she would so "soon get over it." Yet I tried hard to rise, to cry out, to do anything, to save her the "shock" of the telegram. Alas, my body was practically dead. I wondered if ever another were in a state so afflictive. I recalled recorded facts of persons brought to just such a state by the Syrian fever, who yet revived and lived. I did not quite despair, yet my future to my calmest view looked dark.

Time passed. Voices again said over me, "Telegram from the East. Harkoe's remains to be expressed without delay." "No lack of means." "Beautiful corpse. Mercy he was not disfigured. Always was fine looking." "Appears as if asleep; almost as if he were alive and wanted to speak." "Painless death. Wonderfully calm!"

For a moment I was tempted to curse calmness, but an instant's reflection convinced me that the awfulness of my situation demanded absolute self-possession.

Properly enshrouded and enclosed, I was "expressed without delay," and found myself in my own drawing room, the centre of attraction to a crowd of weeping, admiring, complimentary friends. Such appreciation was quite flattering to my pride. Only for a moment, however, for I calmly reflected that my warmest admirers in death had least appreciated my virtues in life. Among them were hard debtors, hard creditors, despisers of my adversity, envious of my prosperity; hardest of all, slanderers of my good name in life glorified it in death. The few who had been tender ever, and true, wept so silently that they passed my closed eyes almost unrecognized, save that, being very calm, I knew each by the smothered sob, the whispered name, the tender touch, the mysterious magnetism which reveals to the soul the presence of the loved and true. "This would be edifying were my situation less precarious," reflected I, "but it is more than precarious, positively disastrous; calmness, however, is the part of wisdom."

Where is Amy? Somehow I looked for her love to rescue me—for power there is in such a woman's love. Could I lie there and let her break her heart in twain for me? Surely I must respond to the power of her voice, her touch.

When all were gone she came. Alone with her dead! Voiceless, tearless, in her great anguish. Clinging to me prostrate beside me, broken-hearted, inconsolable, and I a living man, yet dead to her! It was too horrible. I fainted. Yes, I fainted, but did it calmly, knowing when and why I swooned; and when I revived remembered it all. With that memory my last hope of rescue fled, and striving to forget the trifling incidents of a living on-coffinment and burial, I solemnly reflected upon my prospects for eternity. The present seemed to me a momentous hour, pregnant with eternal consequences. Wholly conscious was I that my soul was not prepared for its immortality. My past life, virtuous, just, reasonably charitable and quite equable, was to me, in that hour, loathsome. Why had I wasted on trifles the powers of an immortal nature! Why neglected the Word of eternal life! Why failed to test the power of Christ's salvation! Might I even now, acquaint myself with Him and—

Such salutary and appropriate reflections were rudely interrupted by a fashionable undertaker, and his body-guard of assistants. The coffin, in which I had begun to feel somewhat at home, was regarded as not good enough for the decay of mortal flesh, and I heard whispered gratulation that this new one cost five hundred dollars, and that as much more money would not pay for the flowers which were to adorn it. "Lovely corpse," briskly observed the undertaker, "money plenty; rare opportunity to make our best display. Funeral at the church, too. Crowds drawn by the railroad disaster and Harkoe's popularity. Big funeral sermon expected; minister specially happy in his material there, too, such a faultless life! calm, serene as a summer's eve, I would almost preach upon

it myself; so unlike my last case, when the minister was positively at his wife's end to get hold of anything to the credit of the departed. He did his best, though, and made him out almost a saint. But Harkoe, here was 'lovely in his life, and in death he is not divided'—that's not exactly the wording of the text, perhaps; the preaching you know, is not my vocation, but my business is, as Harkoe was lovely out of his coffin, to make him lovely within it, so here's to duty." And amid subdued laughter I was lifted out of my snug retreat, and re-arrayed for the tomb in more elaborate and costly apparel. All this, as before intimated, sadly sundered the thread of my solemn reflections, and by the time I was satisfactorily bestowed, and adjusted in the five hundred dollar casket, I was so fatigued and disgusted that, while endeavoring to recover my habitual equanimity, I fell asleep only to be awaked by fresh devices of the undertaker, preparatory to the private funeral, which I understood was to precede the public. It was the mention of my wife's name that awakened me.

"Mrs. Harkoe is hard to manage about the funeral," said the undertaker. "She's not fond of display, would like to be much with her dead—preposterous idea that; deprives our profession of its only opportunity. Great ado there is to find one withered rose-bud, which I lost out of the first coffin. It seems he put it on her breast the morning he left home, so she wants that and makes nothing of five hundred dollars' worth of hot-house flowers. They couldn't get her off her knees to have her mourning fitted till we appealed to her respect for the dead." She don't care even for his funeral sermon, but told the minister—looking herself more like a corpse than Harkoe here—says she to her pastor, 'Dear sir, this is an hour for honest words, and alas, neither you nor yet I have interested ourselves to know if his soul, in life, was at peace with God. Summoned in an instant, what dare we say of its future? I would give my soul to know that his is safe; for I love him better than I do myself.'"

"God save her intellect," solemnly put in the florist. "She must be going wild to answer the reverend gentleman in that way. So many tender, sweet things she might have told him to ornament the funeral sermon. The effect of that lily on the pillow is fine; the cheek, by contrast, has almost a life-like glow. Uncommon corpse!"

I tried to be calm in my coffin and prepare to die. but such a fuss was there, above, about, around, over and under, beside and beneath me, with mottoes, wreaths, crosses, harps, crowns, anchors, and no end of floral decorations, that I felt my poor soul's chances were so slender as to be scarcely worth considering.

"Sweet mottoes," breathed an amiable lady, Amy's friend, overlooking the work. "'Safe in the arms of Jesus,' 'Sweet rest in Heaven,' 'The gates ajar,' 'Angels welcome thee,' 'A crown upon his forehead, a harp within his hand.' Beautiful floral idea, that actual crown and harp of flowers, with the rest of the motto spelled in flowers between! That must go over to the church."

Awful to relate, the last "beautiful floral idea" so struck my inherent sense of the ridiculous that I laughed—in spirit—and then, either for horror that I had laughed, or from an empty stomach, I once more fainted, and revived only as they jostled me on entering the church. The first sounds I took in were the words spoken by the minister as I was borne up the aisle: "He that liveth and believeth in Me shall never die." My soul grasped them. In sweet rest? No, no. That was my mother's rest, my Amy's rest. I knew there is such a rest, and that I possessed it not. Yet the organ and the choir were chanting, "Requiescat in Pace." I stopped my ears, to use a metaphor, and said boldly to my soul: "Be calm, and deal truly with thyself, O immortal soul; though organs, choirs, hymns, mottoes, sermons and their authors lie, lie thou not to thyself, for soon thou wilt be with thy God, where truth alone shall stand." Thus charged, my soul made honest answer: "Thou art no believer, and 'He that believeth not the Son shall not see life, but the wrath of God abideth on him.'" The singing of sweet hymns of love and peace in Heaven kept creeping in to mock me, and over my head the pastor read of the pearly gates and golden streets, and I caught, "The Lamb is the light thereof," and "Whose names are in the book of life."

They meant it kindly for me, I know; but they all might have known that if my spirit heard I should have better than to think it appropriate. Then my

solemn dealing with my soul was sadly put about by the sermon. It seems very ungrateful to come down on a man, especially on a good man, my own dear pastor, he my personal friend and college classmate, too, for anything so well meant, so solemn, tender, appropriate, and altogether up to the times as a model funeral sermon over a calm, peaceable, moral man in his coffin. But truth compels me to say it almost cost me my soul to lie there and listen to it. It put me into Heaven so neatly, in theory, that had not the circumstances made it indispensable for me to get there in reality, and without any but insurmountable delays, its sophistry might have cheated me. It was very distracting to hear what a good son, amiable brother, devoted husband, dear friend, worthy citizen, and benevolent helper, I had been, just as I was agonizing in spirit to learn, ere it was forever too late, the meaning of that belief in the Lord Jesus Christ which is unto eternal life.

Pathetically the sermon closed. The audience were melted to tears, and the organ sobbed in sympathy with the crowds who passed my coffin, soothing their anguish with its glories. Disengaging myself as much as possible from the pageant, I asked myself, candidly, "Am I, at heart, a believer in the Lord Jesus Christ?" and answered my soul, truly, in the negative, "Thou knowest not, oh, my soul, even faith's meaning." By this time the crowds had passed, and I felt hands busy with the flowers and fol de rolls of my funeral toilet, and know the cover of the casket was to be closed and locked. An awful spiritual anguish, unknown before, seized me, and I wrestled in body, soul and spirit, in the mortal anguish of a calm endeavour to save my body from the grave, that my soul might find the way of eternal life. But the casket closed! The key clicked in the lock, and I was borne away, fainting as I went. Yet I fainted calmly, saying to myself "I am fainting, and the grave will not hurt me. But what of that second death?"

The casket lid lifted. A breath of pure winter air seemed to penetrate my being, as the undertaker said, "His wife will have a last look before we lower him. Some one has found and handed her his last gift, that last rose-bud, and she will lay it on his heart. We must humor her." Then my wife's breath was on my lips, warm kisses which I felt, while at the same time I was thrilled with a sharp physical pain, unknown before. As she bowed over me, all overshadowed with her flowing veil, she put her little hand, with the rose-bud, upon my pulseless heart. I gasped. She shrieked, "He lives! There is a warm spot at his heart!" "Crazy! Stark mad with grief," they muttered, and drew her away. My wife to a mad house! Myself to the grave, and to eternal death! The thought electrified my waking life. I sat up, stood up, in my coffin! I clasped my wife to my heart with my left arm, laid my right hand on my pastor's—for he stood beside me—and said, calmly, solemnly, "Dear pastor, classmate mine, what must I do to be saved?"

He answered as solemnly, "Believe on the Lord Jesus Christ, and thou shalt be saved." "There is none other name under Heaven, given among men, whereby we must be saved."

"So I was reflecting while you preached my funeral sermon; but I understood you to put me in Heaven by another method."

"Oh, that was your funeral sermon, John," he replied, a twinkle of genial humor shining through his tears; "it couldn't hurt you, dead; but alive, don't trust it! don't, I beg! Trust the Lord Jesus Christ. Take Him at His word, as your boy does you."

"Trust Him! I see it!" cried I, joyfully, "why, 'tis plain as day!"

I stepped out of my coffin into my carriage—putting Amy in first—and rode home, a happy believer in the Lord Jesus Christ.

THE PAST.

The infinite galleries of the past await but one brief process, and all their pictures will be called out and fixed forever. I had a curious illustration of this great fact on a humble scale. When a bookcase, long standing in one place, was removed, there was the exact image left on the wall of the whole, and of many of its portions. But in the midst of this picture was another, the precise outline of a map which had hung on the wall before the bookcase was placed there. We had all forgotten everything about the map until we saw its photograph on the wall. Thus, some day or other, we may remember a sin which has been covered up, when this lower universe is pulled away from before the wall of infinity, where the wrong-doing stands self-recorded.—U. W. Holmes.

SNOW FLAKES.

Falling all the night-time,
Falling all the day,
Crystal-winged and voiceless,
On their downward way ;

Falling through the darkness,
Falling through the light,
Covering with beauty
Vale and mountain height,—

Never Summer blossoms
Dwelt so fair as these ;
Never lay like glory
On the fields and trees.

Rare and airy wreathing,
Defly turned the scroll,
Hung in woodland arches
Crowning meadow knoll.

Freest, chastest fancies,
Votive art, may be,
Winter's sculptors rear to
Summer's memory.

—J. V. Cheney. in the Critic.

GOUNOD ON MUSIC.

Gounod, in a late interview in London, said among other things:—

"To my mind the intellectual tendency of the art of music is greater than the sentimental to-day, but the great fault of music now is that it is complex and not simple. Masters are too apt to study the effects of a hautboy, of a violin, of a flute—questions of detail—and to disregard the great value of the *tout ensemble*—the expression, in its completeness, of an idea. It was not always so. Rossini and Mozart, for example, were both sublimely simple. All the greatest things are always simple. Rossini composed divinely from divine inspiration. It is as though God had ordered him to sing, and he sang, naturally, easily, and spontaneously. It was his nature, and there was no effort. The same was true of Mozart."

"What is your opinion of the art of music now?" inquired the interviewer.

"Like everything else, it is in a transitory stage. It is not wholly sentimental or wholly practical. When the two are wedded together it will be sublime, and the fact of our being in this transitory state gives me confidence. There is strength in weakness, and where there is opposition to truth, truth would not be the loser; we gain the strength and experience by combat and failure; and it is always after a transitory and hesitating stage like the present that the grandest epoch comes when idealism and reality go hand in hand, when faith and reason are one. The time will come, rely upon it, although perhaps neither you nor I will see it. It is the natural evolution of all things, and the history of human thought is as the physical history of this planet. As years and centuries roll on we shall see things clearer, until faith and reason will be as one, and things which we now consider supernatural will be natural. Music is only one phase of thought, and in considering its present and its future, I cannot separate it from other forms of thought. They all have the same history, and will eventually meet with the same full completeness and perfect power."

"But what will be the result of this present complex condition of the theory of music in Europe?"

"Why, naturally from this complexity will spring simplicity. The next great master will be as simple as Mozart and Rossini. He will come as a giant and break all, but with the fragments of what he has broken he will erect a splendid temple—Power; powerful, because it is truth, and simple, because it is true and powerful. As it is with the history of any art, so it is with the history of nations. Germany has been for years the head, the reason, and intelligence; and France, the heart, the sentiment. The day will come when they will understand each other, and be as one."

"How long did it take you to write 'Faust'?" was asked.

"About two years and a half; but then I was interrupted. I wrote 'Le Medicin Malgre Lui' in the middle of 'Faust.' People do not understand that kind of music—the simple. I expressed the *Faust* and *Marguerite* of Goethe as I understood them."

"Have you ever heard Spohr's 'Faust'?" inquired the correspondent.

"Years ago; but I do not recollect it. I am glad I did not know it well at the time I composed mine, for it might have modified my conception on the subject."

After a pause M. Gounod broke out: "I envy men who have time to express their thoughts by apostles. I am nothing but a poor musician, and the theatre absorbs all my time. I envy men who can directly appeal to the thoughts of their fellow-men by their pen or by their voice."

"But surely music is an expression of thought?"

"Yes, of course; but not so direct. I do not complain, for everything has its use, but I envy men who are free, and who have time to use their faculties as they please. Had I my life over again I should not be a musician; I should devote my faculties to literature and philosophy."

A SEDATIVE AND A POISON.

Sir William Gull thus speaks of alcohol:—
"I would also say that I do not know how alcohol does act upon the body altogether, but in disease we use it very much as a sedative. I do not think its mode of action is known, but I know it is a most deleterious poison. I would like to say that a very large number of people in society are dying day by day poisoned by alcohol, but not supposed to be poisoned by it. In the case of a person suffering from alcohol distinctly, I confess I should not be afraid to stop it altogether in most cases; on the contrary, I should think it highly desirable to stop it altogether; of course it must

depend upon the age of the patient, or whether there is any likelihood of doing him any good at all. If there were no likelihood of doing any good at all it does not matter very much what one prescribes, but if the patient were a young man whose organs were good, that would be a case in which I should stop it. That is to say, if a patient came before me as a drunkard and not as a sick man, and I found his organs not permanently damaged, I would say, get rid of the alcohol at once. I should certainly not anticipate any evil consequences if he were well fed. I think it is a prejudice, and an injurious prejudice, to suppose you must continue the poison if the patient is well fed. If the evil has not gone on to a great extent I think people for the most part would be willing to take advice about the matter. That is to say, where they have erred from want of knowledge. I think there is a great feeling in society that strong wine and strong stimulants make strength. I should regard that as a misinterpretation of the word strong, arising from the feeling which immediately follows the application of the stimulants. They have a strong effect, and people feel that they give strength. I believe that a very large number of people have fallen into that error, and fallen into the error every day, of believing that strong wine gives strength."

THE DYING MOTHER.

Lay the gem upon my bosom,
Let me feel the soft warm breath,
For a strange chill to me passes,
And I know that it is death.
I would gaze upon the treasure
Scarcely given ere I go;
Feel her rosy, dimpled fingers
Wander o'er my cheek of snow.

I am passing through the waters,
But a blessed shore appears;
Kneel beside me, husband dearest,
Let me kiss away thy tears.
Wrestle with thy grief, my husband,
Strive from midnight unto day;
It may leave an angel blessing
When it vanisheth away.

Lay the gem upon my bosom,
'Tis not long she can be there;
See! how to my heart she nestles,
'Tis the pearl I love to wear.
If in after years beside thee
Sits another in my chair,
Though her voice be sweeter music
And her face than mine more fair.

If a cherub call thee "father,"
Far more beautiful than this,
Love thy first-born, O my husband!
Turn not from the motherless,
Tell her sometimes of her mother,
You can call her by my name
Shield her from the winds of sorrow,
If she errs, O gently blame!

Lead her sometimes where I'm sleeping,
I will answer if she calls,
And my breath shall stir her ringlets,
When my voice in blessing falls.
Then her soft black eye will brighten,
She will wonder whence it came;
In her heart, when years pass o'er her,
She will find her mother's name.

It is said that every mortal
Walks between two angels here,
One records the ill, but blots it
If before the midnight drear
Man repenteth; if uncancelled,
Then he seals it for the skies;
And the right hand angel weepeth,
Bowing low with veiled eyes.

It will be the right hand angel,
Sealing up the good for heaven,
Striving that the midnight watches
Find no misdeed unforgiven.
You will not forget me, husband,
When I'm sleeping 'neath the sod;
Love the little jewel given us,
As I loved thee, next to God!

THE PROMISED LAND.

I was once crossing a series of undulating ranges abutting on Mount Hermon on an English tourist who was making merry at the utterly barren appearance of the "promised land." It turned out, however, that his attempted wit served to sharpen our observation, and we found that all the hill-sides had once been terraced by human hands. A few miles further on we came to Rasheya, where the vineyards still flourish on such terraces, and we had no difficulty in coming to the conclusion that the bare terraces, from which lapse of time had worn away the soil, were once trellised with the vine, the highest emblem of prosperity and joy. Similar terraces were noticed by Drake and Palmer in the Desert of Judæa, far from any modern civilization. It is rash to infer that because a place is desolate now, it must always have been so, or must always remain so. The Arab historian tells us that Salah-ed-Din, before the battle of Hattin, set fire to the forests, and thus encircled the Crusaders with a sea of flame. Now there is scarcely a shrub in the neighbourhood. In wandering through that sacred land, over which the Crescent now waves, one is amazed at the number of ruins that stud the landscape, and show what must once have been the natural fertility of the country. Whence has come the change? Is the blight natural and permanent, or has it been caused by accidental and artificial

circumstances, which may be only temporary? Doubtless, each ruin has its tale of horror, but all trace their destruction to Islamism, and especially to the blighting and blighting presence of the Turk. That short, thick, beetle-browed, bandy-legged, obese man that so many tourists find so charming, is a Turkish official. He and his ancestors have ruled the land since 1517. A Wilberforce in sentiment he is the representation of "that shadow of shadows for good—Ottoman rule." The Turks, whether in their Pagan or Mohammedan phase, have only appeared on the world's scene to destroy. No social or civilizing art owes anything to Turks but progressive debasement of decay. That heap of stones in which you trace the foundations of temples and palaces, where now the owl hoots and the jackal lurks, was once a prosperous Christian village. Granted that the Christianity was pure in creed nor ritual; yet it had, even in its debased form, a thew and sinew that brought prosperity to its possessors. The history of that ruin is the history of a thousand such throughout the empire. Its prosperity led to its destruction. The insolent Turk, restrained by no public opinion, and curbed by no law, would wring from the villagers the fruits of their labour. Oppression makes even wise men mad, and the Christians, goaded to madness, turned on their oppressors. Then followed submission on promise of forgiveness. The Christians surrendered their arms, and the flashing cimeter of Islam fell upon the defenceless, and the place became a ruin amid horrors too foul to narrate.—*The Contemporary Review.*

THE ELEPHANT WHO DID NOT SEE THE JOKE.

The Rev. Mr. Watson gives a very curious story in illustration of this animal's wonderfully long memory of a wrong suffered. One of those pests of society, "a practical joker," visited a caravan in a West of England fair and tried his stupid tricks upon an elephant there. He first doled out to it, one by one, some gingerbread nuts, and when the grateful animal was thrown off its guard he suddenly proffered it a large parcel wrapped in paper. The unconscious creature accepted and swallowed the lump, but immediately began to exhibit signs of intense suffering, and snatching up a bucket handed it to the keeper for water. This being given to it, it eagerly swallowed quantities of the fluid. "Ha!" cried the delighted joker, "I guess those nuts were a trifle hot, old fellow." "You had better be off," exclaimed the keeper, "unless you wish the bucket at your head." The fool took the hint only just in time, for the enraged animal having finished the sixth bucketful, hurled the bucket after its tormentor with such force that had he lingered a moment longer his life might have been forfeited. The affair had not, however, yet concluded. The following year the show revisited the same town, and the foolish joker, like men of his genus, unable to profit by experience, thought to repeat his stupid trick on the elephant. He took two lots of nuts into the show with him—sweet nuts in one pocket and hot in the other. The elephant had not forgotten the jest played upon him, and therefore accepted the cakes very cautiously. At last the joker proffered a hot one; but no sooner had the injured creature discovered its pungency than it seized hold of its persecutor by the coat-tails, hoisted him up by them, and held him until they gave way, when he fell to the ground. The elephant now inspected the severed coat-tails, which, after he had discovered and eaten all the sweet nuts, he tore to rags and flung after their discomfited owner.—*Chambers' Journal.*

OLD CUSTOMS IN TIBET.

The principal food of the country is called jamba. To make it, a quantity of powdered tea is cooked for several hours, after which it is poured into a churn, when salt and butter are added, and the whole is stirred until a complete mixture is effected. The broth is then divided among the hungry ones, each of whom gets his share in a wooden bowl; after which a sack of roasted barley-meal is brought out. Every one takes a handful of meal from the sack, puts it into the tea and mixes the mass into a shapely lump, and swallows his dough with a keen appetite. After the meal is over, the wooden bowls are licked clean with the tongue and worn on the breast next the skin as something precious. Three ways of burying the dead prevail. The poor sink their dead in one of the mountain streams; those of a better class hang the bodies upon a tree, where they are consumed by birds, and the bones are afterwards thrown into the river; the rich cut the bodies up into small pieces, pound the bones and mix them with jamba, and then carry the remains to the mountains where they are left for the birds. These are old customs and have no connection with religion.—*Lieut. G. Kretzer, in Popular Science Monthly.*

THE coronation of the Czar is announced to take place at Moscow on the 27th May.

THE faculty of Bowdoin College has expelled five sophomores recently suspended for hazing.

A NUMBER of armed explorers, under Austrian officers, have left Belgium to join Stanley in the Congo expedition.

THE teaching of music in the public schools of Japan has been conducted for the past two years by Luther W. Mason, of Boston.

CRIME has of late been alarmingly on the increase in Germany. Desperate murders and robberies are of almost daily occurrence.

THE Senate of New Jersey has passed by eleven to ten a bill prohibiting the manufacture or sale of any alcoholic or intoxicating liquors.

THE municipality of Rome has placed a memorial tablet in the house which Prof. Samuel F. B. Morse inhabited while in that city in 1830.

THE anti-slavery societies of Madrid, Saragossa and Valencia demand the suppression of the ten years' service by emancipated Cuban slaves.

YOUNG CANADA.

STRETCHING THINGS.

"I'm almost dead! It is as hot as fire, and I've been more than a dozen miles after that colt."

Andrew threw himself at full length on the lounge and wiped the perspiration from his forehead.

"Where did you go?" inquired his father.

"I went over to Briggs' corner and back by the bridge."

"That is little less than a mile and a half. Is it so very warm, Andy? It seems quite cool here."

"No, not so dreadful, I don't suppose, if I'd taken it moderate, but I ran like lightning and got heated up."

"You started about five o'clock, my son, and now it lacks a quarter of six," said his father, consulting his watch.

"Yes, sir, just three quarters of an hour," answered Andrew, innocently.

"Does it take lightning forty-five minutes to go a mile and a half?"

"I didn't mean exactly that, father, but I ran all the way, because I expected the whole town would be here to-night to see my new velocipede," explained Andrew, reluctantly.

"Whom did you expect, Andy? I wasn't aware such a crowd was to be here? What will you do with them all?"

"Jim, Eddy, and Tim told me they'd be round after school, and I wouldn't wonder if Ike came, too; that's all."

"The population of the town is five thousand, and you expect three of them; well, as you are very sick, I'm glad no more are coming. You couldn't play with them at all."

"Sick!" cried Andrew, springing to his feet, "who says I'm sick?"

"Why, Andrew, you said you were almost dead; doesn't that mean very sick?"

"You are so particular, father, about my course. I wasn't nearly dead, to be sure, but I did some tall running, you bet! There were talking! I don't mean exactly what I say, of more than fifty dogs after me, and I don't go much on dogs."

"Quite a band of them. Where did they all come from?"

"There was Mr. Wheeler's sheep dog, and Rush's store dog, and two or three more, and they made for me, and so I ran as fast as I could."

"Five at the most are not fifty, Andy."

"There looked to be fifty, anyway," answered Andrew, somewhat impatiently. "Carter's ten-acre lot was full of dogs just making for me, and I guess you'd thought there was fifty if it had been you."

"Ten acres of dogs would be a great many thousand; have you any idea how many?"

Andrew did not like to calculate, for it occurred to him what a small space ten or fifteen thousand sheep would occupy when camping, and ten acres of dogs would be past calculation.

"But," his father continued, "I know no better way to break you of the foolish habit of exaggeration than to tell the children the trouble you had in going after the colt. You

ran like lightning, encountered ten acres of dogs, which would be hundreds of thousands, travelled more than a dozen miles to get one and a half miles in a straight line, expected to find five thousand people here to examine your new velocipede, and when you reached home was nearly dead!"

"Please don't, father, the boys and girls will all laugh themselves to death, and I won't exaggerate again if I live to be as old as Methu-selah!"

"Laugh themselves to death at a simple story like this? I hope not! But that it will rather set them to watching their own manner of telling stories, so to be sure they do not greatly overstate things. Habit, my son, grows with years, and becomes, in time, so deeply rooted, that it will be impossible for you when you become a man to relate plain, unvarnished facts, unless you check the foolish habit you indulge in every day of stretching simple incidents into the most marvellous tales."

WHEN MOTHER IS ILL.

Which little girl will read these stanzas, and see her own portrait?

When mother is ill, you ought to see
How kind and loving I try to be.
I step about in the gentlest way;
I bathe her head, and I set her tray
With the best of tea and the brownest toast,
And whatever I think will tempt her most;
And I keep the little ones, oh, so still!
You ought to see me when mother is ill!

I carry the baby up the stair;
I let him play with my dollies there—
I give him the one that I keep on the shelf;
And I rock him to sleep just my own self.
I never scold, and I never fret;
I call him a darling, a pink, a pet.
And I'm ever so kind to Jack and Will,
Ever so patient when mother is ill.

When mother is ill, I take her place,
As well as I can, with a sober face.
I go to the door when father goes,
And bid him good-bye on my tip-toes;
I watch for the doctor, and let him in,
And he's sure to tip me under the chin;
I help when Bridget is making cake,
And a taste of the cookies she lets me take;
And I haste in my dress a nice white frill,
For I try to be neat when mother is ill.

What's that you are saying? You think that Nell
Should do those things when mother is well?—
Should sit in the corner, like a mouse,
And mind the baby, and help keep house,
And be as dear as a child can be,
As sweet as a lily! Oh, you shall see,
Just watch me now, and I know you'll tell
The folks, I'm good when mother is well.

FARMER BOYS.

Many country boys who have secured situations in the city are throwing them up and returning home. They find it easier hoeing corn than working early and late for a jobbing house, and trying to sleep during the sultry summer nights in the oven-like attics of cheap boarding-houses. Their wages are small, their food inferior. They are overworked, and have little or no recreation. The work required is far more laborious than that of a green hand on shipboard. They find themselves but minor parts of some huge commercial machine, and thereby being rapidly worn out by its merciless wear and tear.

They are in the same category as the omnibus or car horse, and individually of no more importance to the great men at the head of the firm in whose service they may be. The days when it was common for a boy to begin as light porter and work his way up to a part-

nership in the firm, finishing by marrying the daughter of the rich merchant, are found no longer cut of the story books. We do not now do business in that way. As well expect to enlist as a private in the regular army and rise step by step to the position of general. Life, health and vigour, with intelligence, are as the lubricating oil which diminishes the friction of the iron machinery; and this oil is rapidly used up. Shall the boy stick to the hoe and plough? It is hard to advise. The farmer does not often rank among our millionaires. But still there may be something better than being a millionaire.

ALL SORTS OF HAIRS.

I suppose you youngsters think that all hairs are alike except as to colour; but that is only because your eyes are not very sharp. If your eyes were as sharp as a microscope, you could tell from the tiniest slice of a hair whether it grew on a boy or a quadruped, and what quadruped. A human hair, I am told, looks, in that searching little instrument, like a hollow tube, quite transparent, and marked with irregular lines around it. On looking very closely, these lines are seen to be the ends of separate surface coats, or bark of the hair. Think of your hairs having bark! Inside the thin, scaly covering is a fibrous substance, from the bulb where it begins, to the point. The colour of the hair is decided by the colour of the fluid that fills this transparent tube. A cat's hair looks, under this prying instrument, like the trunk of an old, rough palm-tree; while a bat's hair resembles flowers of a trumpet shape, stuck into each other to form a chain. A bat from India has the trumpet-shaped cups expanded very wide, and notched on the edge. Hair from the head of a bee is pointed and set with short hairs standing straight out from the stem; and the hairs of a caterpillar are like stout, horny rods, drawn to a point and set with spines on each side.

This is very queer; but there's another thing about it. If the hairs of sheep, and other animals whose hair is used in manufactures, had not rough scales which clasp and mat together, they could not be made into felting. That is what makes broadcloth and other woollen cloth so firm and strong.

A RAT AND A WEASEL.

If animals are not endowed with reason, it would be interesting to know just what faculty a Santa Barbara weasel summoned to his aid the other day. He had been worsted in an encounter with an enormous rat, which, aware of his own superior strength, subsequently bull-dozed him most shamefully. Determined not to submit to such indignities, the weasel improved a few moments of solitude to dig through a heap of hardened compost a hole large at one end, but so small at the other as just to admit the passage of his body. Having completed the job to his satisfaction, he went forth and engaged in another battle with the rat. Again he was defeated, but this time his resources were not exhausted. He darted into the hole with the rat at his heels, emerged at the small end, and entered again at the large end. The rat, tightly wedged in the narrow passage, fell an easy victim to the cunning of his adversary.

THE GREAT STONE PICTURE-BOOK.

You know that the world has been many thousands of years the workshop of the winds and waves. If any one had been in America, say ten or twenty thousand years ago—for no one can say exactly when it happened—he would have found that it was a pretty cold country. North America was nearly the same shape that it is now, but a strange thing had happened. All the upper part had been lifted up out of the sea, and it was so terribly cold that the whole country was covered with a thick sheet of ice. The ice covered all New England and the Middle States, and stretched clear across Long Island Sound and Long Island, and out into the sea, just as it does in Greenland to-day. There were glaciers such as we see in Switzerland and in the valleys of the Connecticut, the Hudson, the Mohawk, and the St. Lawrence.

Then the land began to sink down again into the sea, and the summers grew warmer, and the ice began to melt and form lakes and pools, shallow bays and rapid rivers. The whole mass of the ice began to slide down into the sea. It ploughed up the loose earth, and tore off the rocks, and rolled them over and over, crushing and grinding them into sand and gravel. If we had lived then we should have said the sea was invading the land; the fact is, the land was sinking in the water, and every year the beaches moved farther into the country. There were travelling beaches, and there were great fights

between the rivers of ice water and the stormy waves that tore up the sand and flung it down before the floods from the hills. Every railroad cutting made through a gravelly hill will show you rounded pebbles and stones, layers of sand and gravel, all sorted out exactly as we see them on the shore to-day.

Look about and see if you can find a sand bank or a gravel hill. Sand is used in house-building, and the masons in your town will be pretty sure to find a place where they can dig it out to put in their mortar beds. Look at one of these sand pits. The sand is arranged

in layers and sheets. Take these round stones sorted out according to their sizes in the hill. You cannot think the sand made itself. You cannot imagine the Creator rounded all these stones and placed them in layers merely for amusement, or to make something to puzzle us. Everything we see in the world had a cause, and if you find something far back in the country that seems just like the sea shore, you may be very sure the sea was once there. Sand and gravel are made by the waves where

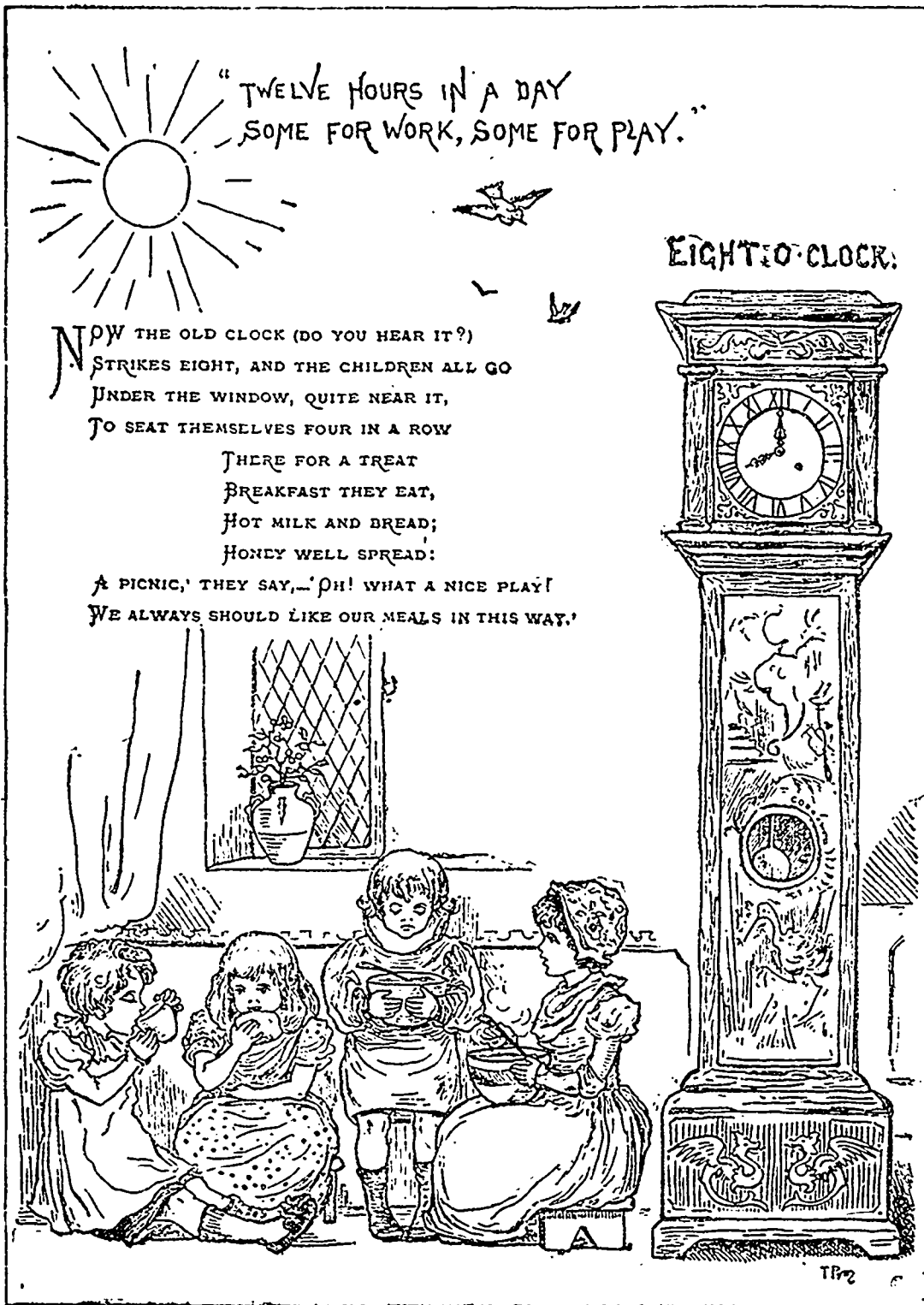
lifted up out of the water and let down again, and each time the coast line moved backward or forward. Continents became archipelagoes, and then scattered islands, and at last sank in the sea. Rivers turn into bays, and valleys became sounds and straits. Europe was once much larger than now, and once of wholly different shape. Ireland joined England, and England touched France.

Everywhere there has been change; not suddenly, but slowly, just as it is to-day. No

man has seen Sandy Hook growing, but it does grow. No one can measure how fast the hills fall into the sea near Boston, yet the work goes on all the time. The gravel heaps and sand banks of New England and the sandy barrens of South Carolina and Georgia are comparatively new. That last change when beaches extended far back into the country, was really only a little while ago, perhaps only half a million years, more or less. Behind all that were older seas and more ancient shores. As soon as there began to be land there was a beach. Perhaps the first land was only a sand-bar. Volcanoes threw out hot rocks and ashes, and these fell in the sea, and were ground up into sand. These old, old beaches, so venerable no man can count the years that have passed since the sea roared above them, are dead and turned to stone. To-day, as we know, they are called sandstones. You can see the ripple marks and even the old shells in the stones we put into our houses.

People who have looked at the many

different kinds of rocks and have studied the work of the sea, the tides, and the waves, have tried to make a science out of it all. They call it geology. Perhaps you fancy that it must be a dry, dull science. Why, you are a geologist yourself. I have told you where these queer things about the rock can be found, and if you have seen them, or have tried to imagine how they look, then you have studied the science too. The next thing is to try for yourself, and see if you can turn over a few more leaves of the great stone picture-book.



they meet the land or roll down the river, so we feel sure wherever the sand is now that once the waves were there.

If you were ever down upon a low flat beach when the tide was coming in, you may have seen that as the water crept up, little capes, straits, islands, and so on, were formed along the edge of the water. Every change of level in the water changed the shape of the miniature continents. So it has been with the real continents. Neither Europe nor the Americas, Asia, Africa, or Australia are now the shape they were years ago. They have been

GLEANINGS FROM MANY FIELDS.

It is charged, and denied, that London (Eng.) middlemen in the meat trade make "five and sometimes six profits," on every joint before it gets into the hands of the consumer.

PROFESSOR F. A. FRIEDLY well says that "boys must be made to love the farm, then they will stay." As means to this end, don't make the daily task too burdensome, and teach them to reap the harvest of sight and sound.

THE smallest hogs in the world are quartered in the Zoological Gardens in London. They came from Australia, and are known as the "pigmy hogs." They are well formed, are frisky, good-natured, and make excellent pets. They are about the size of a wild hare.

CONSTERNATION in a kitchen was occasioned by an old chanticleer, slaughtered and brought in for dinner, "rolling out of the basket and walking the floor." Investigation showed that "his neck was left partly connected," and he chose to take advantage of the last chance for life.

THE discreet farmer will not put a bit full of frost into a horse's mouth. The frost should always be "drawn" first. Whether or not the bit is in a condition to harm the animal, can be readily told by touching a moistened finger to it. There are days in some localities when it will be about as agreeable to touch the tongue to a red hot bit as to one full of frost.

ANYTHING which increases the comfort of an animal is likely to be of permanent benefit to it, and also to the owner. For this reason, warmth in winter and coolness in hot weather are always important, in addition to all the good food needed. The question should always be, not how little can be fed, but how much at a profit; and, also, how much less food, when the animal can be made thoroughly comfortable, by proper shelter and care, aside from food.

DR. HALEY says (*Australian Medical Journal*) that, as a rule, a dull, heavy headache, situated over the brows and accompanied by languor, chilliness, and a feeling of general discomfort, with distaste for food, which sometimes approaches to nausea, can be completely removed, in about ten minutes, by a two-grain dose of iodide of potassium dissolved in half a wine glassful of water, this being sipped so that the whole quantity may be consumed in about ten minutes.

MANY persons take cold from too much exposure of the inner throat. The mouth wide open or constant talking in the air often brings the throat and bronchial tubes in contact with air too chilled for lung circulation. The nose, and not the mouth, is the great inhaler. It is constructed as a warming apparatus, and answers its purpose admirably well. Catlin wrote a book with the title "Keep Your Mouth Shut," and claimed to have found out that the Indians are wiser than the white men in this particular.

AT the recent Ensilage Congress in New York City, Rev. Dr. Ormiston was one of the speakers. He said that farmers made a serious mistake in feeding green corn to cattle. No annual plant was a healthy fodder unless it was near maturity when eaten. Physicians

had told him that much of the sickness among very young children was caused by the fact that they had been given milk obtained from cows that had been fed on food not matured. Animals should not be allowed to eat annual plants that had not been exposed to the ripening influence of the sun. Sunlight was life, and sunlight was bottled up in plants. But with perennial plants, like grass, the case was different. Nature intended that perennial plants should be eaten green.

A CORRESPONDENT of *The Ohio Farmer*, who does not speak without experience of Jersey cows, having kept at different times ten or a dozen half and three-quarter bloods of the breed, takes this heretical view: "Judging from my own experience and observation, the coming farm cow will not be a Jersey or have any Jersey blood. I have no prejudice against the breed. They are generally rich milkers, though not always; but I greatly question whether they will produce a pound of butter as cheaply as a good native, and in every other particular (except appearance) they are much inferior. They are delicate; they are much more liable to milk fever, abortion and other similar troubles than any breed I know. At the same time, they are large eaters, but very choice in their taste, and for beef are absolutely worthless."

MR. M. LEONARD, communicates to *Rural Home* what he thinks "very good evidence that in the process of grafting an effect is produced on the bud to change the year of apple bearing": "In 1871 I purchased a farm on which was an orchard of about 500 trees, set seven years, and which had begun bearing. Finding the fruit not such as I wished to raise for market, I had about 150 trees grafted the following spring. In order to have it bear the right year, I was particular to have the scions taken from a young, thrifty Baldwin orchard on my home farm that had always borne on what is called the odd year, but I was much surprised and disappointed when they commenced bearing to find them bearing on the even year. I then (I think in 1878) cut scions from trees that always bore the even years, and had the remainder of the orchard grafted. The last grafts have commenced bearing on the odd year."

AN extensive breeder, after feeding for eight or ten years, goes upon record in favour of cooking and expresses the belief that one-fourth of the grain is saved thereby. The following experiment is given in his case: Two sows of the same litter, and the same every way, were selected. No. 1 weighed 282 pounds and No. 2 weighed 280 pounds. No. 1 was fed for seventeen days on cooked unground corn, and from the consumption of two bushels and twenty-one quarts, gained thirty-one pounds. No. 2 was fed the same time on raw unground corn, of which she consumed three bushels and thirteen quarts, and gained thirty pounds. Another instance is given in which shoats were fed on raw and cooked corn for six weeks, the result being that while those fed on raw corn gained ten pounds to the bushel, those fed on cooked corn gained fifteen pounds to the bushel—results which are certainly worth the candid attention of breeders. Can any reader of the RURAL CANADIAN furnish for our columns similar results from his own experience?

CREAM.

It seems natural, doesn't it, that when a man's business gets run down he winds it up?—*Boston Post*.

THE man who was "largely instrumental" was probably of a mechanical turn of mind.—*Boston Transcript*.

"YES," said the farmer, "barbed wire fences are expensive, but the hired man dose'nt stop to rest every time he has to climb it."

Look not through the sheltering bars
Upon to-morrow;
God will help thee bear what comes
Of joy or sorrow.

AN old bachelor, seeing the words, "families supplied," over the door of a shop, stepped in and said he would take a wife and two children.

FIRE is a good thing in the house; but it should be in the chimney, and not in the wife's temper—cooking the victuals, not roasting the husband.

A LITTLE girl, noticing the glittering gold filling in her aunt's front teeth, exclaimed: "Aunt Mary, I wish I had copper-toed teeth like yours."

"I know that the world, the great big world,
Will never a moment stop
To see which dog may be in the wrong,
But will shout for the dog on top.

"But, for me, I never shall pause to ask
Which dog may be in the right;
For my heart will beat, while it beats at all,
For the under dog in the fight."

IN what respect do time and a mule resemble one another? In the fact that it is better to be ahead of both time and a mule than behind either of them.

"ARE you feeling very ill?" asked the physician. "Let me see your tongue, please." "It's of no use, doctor," replied the patient, "no tongue can tell how bad I feel."

AN Irish wit hearing that a stingy and slovenly barrister had started for the Continent with a shirt and a guinea, observed, "He'll not change either till he comes back."

THAT young lady who made 700 words out of "conservatory," last fall, has run away from home. Her mother wanted her to make three loaves of bread out of "flour."

A BAD ending: "Well, William, what's become of Robert?" "What, 'aven't you 'eard, sir?" "No. Not defunct, I hope." "That's just exactly what he 'as done, sir, and walked off with heveryting he could lay his 'ands on."

A PROMISING boy, not more than five years old, hearing a gentleman at his father's table discussing the familiar line, "An honest man's the noblest work of God," said he knew it wasn't true, his mother was better than any man that ever was made.

A HOG is "dressed" when it is shaved and perfectly bare. A man is dressed when he is shaved and has his clothes on. A lady is "full dressed" when she is not shaved and has a minimum of clothes to a maximum of figure. The difficulties of the language become daily more apparent.

HOLMAN Hunt's great picture, "The Flight into Egypt" has been irretrievably ruined by the stretching of the Syrian canvas on which it was painted. It is a very unfortunate thing for art that some of the wonderful creations for which our Government paid big prices were not painted on Syrian canvas.—*Norristown Herald*.

SOMETHING FOR EVERYBODY.

READ, MARK, AND INWARDLY DIGEST.

If you have nausea, want of appetite, flatulency, dizziness, feverish symptoms, you are suffering from costiveness, and Hop Bitters is the Sure Cure.

If your vital forces are depressed, if you have a feeling of general lassitude and weakness, are easily fatigued, perspire freely on going to sleep, are short of breath on every slight effort and have a general feeling of melancholy and depression, you are suffering from general debility and Hop Bitters removes it all.

If you have a sense of weight or fulness in the stomach; a changeable appetite, sometimes voracious, but generally feeble, a morbid craving; low spirits after a full meal, with severe pain for some time after eating. Wind rising on the stomach; sour stomach; vomiting and fluttering at the pit of the stomach, and a soreness over it; nausea, headache, or some of these symptoms, you are suffering from dyspepsia, and Hop Bitters will permanently cure you.

If you freeze one hour, burn the next, and sweat another; if you are suffering all the tortures of the Inquisition, one moment fearing you will die, and the next fearing you won't: if you have blue nails and lips; yellow eyes and ghost-like complexion, you are suffering from that miasmatic curse, Bilious, Malarial Fever, or Ague and Hop Bitters will speedily cure you.

If you have a dry, harsh and yellow skin, a dull pain in the right side, extending to the shoulder blade and pit of the stomach; a tenderness over the region of the liver; a sense of tightness and uneasiness about the stomach and liver; yellowness of the eyes; bowels irregular; a hacking or dry cough; irregular appetite; shortness of breathing; feet and hands cold; tongue coated white; a disagreeable taste in the mouth; low spirits; blotches on the face and neck; palpitation of the heart; disturbed sleep; heartburn; lassitude—if you have any of these symptoms, you are suffering from Liver Complaint, and Hop Bitters only will cure you.

If you have a complaint which few understand and none will give you credit for—an enfeebled condition; a goneness throughout the whole system; twitching of the lower limbs; a desire to fly all to pieces, and a fear that you will; a steady loss of strength and health—any of these symptoms show that you are suffering from that hydra-headed disease, nervousness, and Hop Bitters will effectually cure you.

If you have Bright's disease of the kidneys, or any other disease of the kidney or urinary organs, Hop Bitters is the only medicine on earth that will permanently cure you. Trust no other.

Why is Mrs. Lydia E. Pinkham's Vegetable Compound like the Mississippi River in a spring freshet? Because the immense volume of this healing river moves with such momentum that it sweeps away all obstacles and is literally flooding the country.

"ROUGH ON BEES"

Clears out rats, mice, roaches, flies, ants, bed-bugs, skunks, chipmunks, gophers. 15c. Druggists.

Mrs. J. G. ROBERTSON, of Toronto, was cured of general debility, loss of appetite, etc. She says "that life was burdensome until she used Burdock Blood Bitters." She also states that "she feels better than for years, and cannot praise Burdock Blood Bitters too much." The best medicine known for all diseases of blood, liver, and kidneys.

"Presumption begins in ignorance and ends in ruin." On the other hand, the production of Kidney-Wort began with wise caution and scientific research, and its use ends in restoring shattered constitutions and endowing men and women with health and happiness. "My tormented back," is the exclamation of more than one poor hard-working man and woman: do you know why it aches? It is because your kidneys are overtaxed and need strengthening, and your system needs to be cleansed of bad humours. You need Kidney-Wort.

A HEARTY RECOMMENDATION.—Jacob A. Empey, of Cananah, states that he has taken Burdock Blood Bitters with great benefit in a lingering complaint, and adds that he would gladly recommend it to all.

"BUCHU-PAIBA."

Quick, complete cure, all annoying kidney, bladder, and urinary diseases. 5c. Druggists.

"KIDNEY WORT can never die," and there are none dead who have spoken regarding Hagyard's Kidney Oil, that old reliable remedy for external and internal use. It cures rheumatism, deafness, croup, sore throat, and all soreness and wounds of the flesh.

Scientific and Useful.

If you put soda in the water with which you are to wash windows you will find that finger-marks, putty stains, etc., will be much more easily removed than if clear water alone is used.

PALMETTO FLANNEL CAKES.—One pint of buttermilk, two well beaten eggs, flour enough to make a stiff batter. The flour to be mixed, half wheat and half corn flour. Put a spoonful of sea-foam into the flour, and cook on a griddle.

BREAKFAST WAFFLES.—A hot breakfast stir into the hominy that is left one teaspoonful of butter and a little salt. Set to aside. The next morning thin with milk and add two eggs, beaten well. Stir in flour enough to make the right consistency, and bake in waffle-irons.

WARMED OVER POTATOES.—Treat these in the same way as the scolloped, leaving out the flour and using less milk. It is a much nicer way than slicing them into an old tin basin and giving a stir now and then with an iron spoon while part of the potato and all the butter melts on and flavours the mess.

RICH CHICKEN PIE.—Line a pudding dish with slices of broiled ham, cut up a boiled chicken and nearly fill the dish, filling in with gravy or melted butter; add minced onions, if you like, or a little curry powder; then pile boiled rice to fill interstices, and cover the top quite thick. Bake it for a half or three-quarters of an hour.

In these days when eggs are so expensive, it is worth something to know that one egg will settle a pound of coffee. Warm it in the oven, break in the egg and stir two or three minutes. Every kernel will be glazed and the coffee clear as wine. Ground coffee can be treated in the same way. It must not get so hot as to cook the egg.

A CHILD'S STOMACH.—A good way to regulate a child's stomach and bowels is to give him a little bowl of oatmeal and milk every day for breakfast or dinner; see that it is well salted, as salt promotes digestion. The ailments of a child who is in a normal condition almost always proceed from the stomach, and much may be done for our children by paying some attention to their diet, and so avoid giving medicine as much as possible.

WATERMELON CAKE.—White part: One and a half cups of sugar, one half cup of sweet milk, whites of three eggs, two teaspoonfuls of baking powder, two rounding cups of flour. Red part: One cup red sugar sand, one-half cup of milk, one-fourth cup of butter, yolks of three eggs, one cup of raisins chopped not too fine, two teaspoonfuls of baking powder, two cups of flour, to be baked in a large dish; put the red in the centre and the white around it.

SIFTING ashes is a great waste of time and good clothes. Wet the cinders dumped in the fire pan and bank the fire after dinner. Leave the drafts open until the mass ignites, then nearly close and you have a good fire until ten o'clock at night. The next morning throw all this slag away; it is completely exhausted. There must be a good live bed of coals to cover with the damp cinders. This fire will do everything it ought to for supper except broil steak and toast bread. Leave them for the next night when there will be no cinders to burn.

A FINE RECIPE FOR SAVOLRY BEEF.—Three and a half pounds of lean uncooked beef, pound it, and chop as fine as possible, take out all the strings, and add to it six square soda crackers, rolled fine, butter the size of an egg, warmed a little but not melted, four tablespoonfuls of sweet cream, three eggs broken over the meat, a whole nutmeg grated, four teaspoonfuls of salt, two and a half of black pepper, and a tablespoonful of sweet marjoram; knead well, make it in two rolls, about the size of a beef's tongue, press closely and bake one hour, basting frequently with butter and water. When cold cut in thin slices for tea-table or luncheon.

CORN-MEAL MUSH.—Have the water boiling and the meal ready. The quantity of meal required to make the mush of the right consistency can only be judged by experience, as some grades absorb more water than others. For a family of five persons a pint would probably be found sufficient. Sift the meal into the boiling water with the left hand while stirring the water with a spoon or pudding stick with the right, until meal enough is in. If the meal is fine the mixture should be made as thick as wanted when done. If coarse, it may be made thinner, and will require longer cooking. Cover closely, and set the pot where it will simmer or cook very slowly—for two hours at least; longer would improve it. Serve warm. What is not eaten can be sliced when cold, and browned on a griddle slightly oiled for a breakfast dish.

SKINNY MEN. "Wells' Health Renewer" restores health and vigour, cures Dyspepsia, Impotence, Sexual Debility. \$1.

No family Dyes were ever so popular as the Diamond Dyes. They never fail. The Black is far superior to logwood. The other colours are brilliant.



LYDIA E. PINKHAM'S VEGETABLE COMPOUND. Is a Positive Cure

For all those Painful Complaints and Weaknesses so common to our best female population. A Medicine for Women. Invented by a Woman. Prepared by a Woman.

The Greatest Medical Discovery Since the Dawn of History. It revives the drooping spirits, invigorates and harmonizes the organic functions, gives elasticity and firmness to the step, restores the natural lustre to the eye, and plants on the pale cheek of woman the fresh roses of life's spring and early summer time. Physicians Use It and Proscribe It Freely. It removes faintness, natulency, destroys all craving for stimulants, and relieves weakness of the stomach. That feeling of bearing down, causing pain, weight and backache, is always permanently cured by its use. For the cure of Kidney Complaints of either sex this Compound is unsurpassed.

LYDIA E. PINKHAM'S BLOOD PURIFIER will eradicate every vestige of Humors from the Blood, and give tone and strength to the system, of man, woman or child. Insist on having it.

Both the Compound and Blood Purifier are prepared at 23 and 25 Western Avenue, Lynn, Mass. Price of either, \$1. Six bottles for \$5. Sent by mail in the form of pills, or of lozenges, on receipt of price, \$1 per box for either. Mrs. Pinkham freely answers all letters of inquiry. Enclose 3ct. stamp. Send for pamphlet.

No family should be without LYDIA E. PINKHAM'S LIVER PILLS. They cure constipation, biliousness, and torpidity of the liver. 25 cents per box.

Sold by all Druggists.

WELLS, RICHARDSON & CO'S IMPROVED BUTTER COLOR A NEW DISCOVERY. For several years we have furnished the Dairywomen of America with an excellent artificial color for butter, so meritorious that it met with great success everywhere receiving the highest and only prizes at both International Dairy Fairs. But by patient and scientific chemical research we have improved in several particulars and now offer this new color as the best in the world. It will Not Color the Buttermilk. It Will Not Turn Rancid. It is the Strongest, Brightest and Cheapest Color Made. And, while prepared in oil, is so compounded that it is impossible for it to become rancid. BEWARE of all imitations, and of all other oil colors, for they are liable to become rancid and spoil the butter. If you cannot get the "Improved" write us to know where and how to get it without extra expense. WELLS, RICHARDSON & CO., Burlington, Vt.

KIDNEY-WORT THE GREAT CURE FOR RHEUMATISM. As it is for all the painful diseases of the KIDNEYS, LIVER AND BOWELS. It cleanses the system of the acid poison that causes the dreadful sufferings which only the victims of rheumatism can realize. THOUSANDS OF CASES of the worst forms of this terrible disease have been quickly relieved, and in many instances PERFECTLY CURED. PRICE \$1. LIQUID OR DRY, SOLD BY DRUGGISTS. Dry can be sent by mail. WELLS, RICHARDSON & CO., Burlington, Vt.

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TORONTO WHOLESALE MARKETS.

OFFICE RURAL CANADIAN, Toronto, Feb. 22nd, 1883.

CATTLE AND SHEEP. The receipts of live stock have been limited, and prices in consequence are firm. Choice export cattle are firm at about 6c. per lb. for spring delivery, but shipments at present are almost confined to American stock. Good butchers' cattle are worth 4 1/2c. to 5c., but should the supply increase, the latter would probably not be paid. Ordinary cattle sell at 3 1/2c. to 4c. The supply of sheep and lambs is restricted and prices firm at 5c. for the former, and 5 1/2c. to 6c. for the latter. Calves are in light receipt and firm at 9c. per lb. dressed weight.

FLOUR AND MEAL. - The flour market is firm. Transactions have been few on account of the high prices asked, and offerings were limited as holders were unwilling to sell. Choice Superior Extra sold two days ago at \$4.50 and \$4.75. Extra is nominal at \$4.50 to \$4.60. Bran is in better demand and higher, sales being reported at \$14. Oatmeal is firm; offerings small, and demand fair, with sales of choice cars at equal to \$4.92 1/2 and \$4.95 and ordinary worth \$4.80. Cornmeal is quiet and firm, with barrel lots worth \$3.75 to \$4.

GRAIN. - Business fairly active and the general tone strong. Receipts of wheat are more liberal, the stock of barley shows a decrease. Wheat has been in good demand. The unsettled feeling in Chicago for some time has induced buyers here to hold off. The transactions reported are few, but a good deal has been bought outside by our exporters. Recently car lots of No. 1 fall sold at \$1.07, No. 2 at \$1.05, No. 3 at \$1.03, and goes at 9c. On Monday No. 2 fall sold at \$1.06, and Wednesday 5,000 bushels of the same grade at \$1.05. Spring is also easier, with prices at the close nominal at \$1.08 for No. 2. Barley has been quiet on light receipts, there is a fair enquiry from the United States and round lots are held at an advance, sales were made on Friday and Saturday of No. 2 at 7 1/2c., and No. 3 extra at 6 1/2c. and 6c. The last few days transactions were made at 7c. for No. 1 to 7 1/2c. and 7 3/4c. for No. 2, and at 6c. for No. 3 extra. No. 3 is worth 5 1/2c. to 5 3/4c. according to location. Oats were very scarce last week, and 45c. were paid for a car load, which was needed badly. On Monday cars of western sold at 43 1/2c. on track and yesterday there were offers at 44c. but no transactions reported. Peas are in good demand for shipment at 75c. to 76c., but offerings are limited, car lots of No. 2 will bring about 50c. Eye quiet, with a moderate demand but no offering, prices are nominal at 60c.

HIDES AND SKINS. - The receipts of hides are plentiful but as a rule they are of an inferior quality. There has been but a moderate demand for cured, which are unchanged at 7 1/2c. for car lots of cows, green bring 7c. for cows and 8c. for steers. Sheepskins are firm with supplies moderate choice will bring \$1.25 to \$1.35 and country lots \$1. Calfskins are almost nominal, with few offerings yet.

PROVISIONS. - The movement has been moderate and prices show firmness. Stocks are generally better. Butter, a good enquiry for choice tubs at about 22c., but the offerings of it are limited. Ordinary tubs will bring 20c., and large rolls from 15c. to 18c. Inferior lots are quoted at 13c. Cheese is in demand and slightly firmer than last week, ordinary lots are worth 12 1/2c. and the best 13 1/2c. Eggs are slightly easier, the demand being less active, they are quoted at 90c. to \$1. Eggs fair receipt and steady, fresh sell at 26c. to 27c. in case lots, and pickled are 23c. to 24c. Beans are rather firmer, with a moderate demand at \$1.70 to \$1.75, sales of barrel lots are being made at \$1.90 to \$2. Potatoes inactive, with car lots worth about 65c. per bag. Bacon is firm, with good enquiry; round lots of long clear are held at 11c. and small lots at 11 1/2c.; C. C. is unchanged at 10c. to 10 1/2c. Lard firm, with a sale of a round lot of sweet pickled at 11 1/2c. March delivery, smoked ranges at 15c. to 13 1/2c. Lard unchanged, tubs sell at 13 1/2c. and pails at 14c. Pork inactive and steady with Canadian worth \$21 and American \$2.50 to \$22. Hops are in good demand, and firm, with offerings limited. Good car lots, averaging 2 1/2c., bring 8 1/2c. and choice \$9.10 to \$9.15; light weights are quoted at \$7.90.

FELLS. The export trade in Cloves is now about over, and dealers have had a very fair season. There is said to be little held in the country and receipts here during the year have been almost nil. Cloves range from \$7.25 to \$7.75, according to quality, and sticks is \$9 to \$12. Timbely is in fair offer and steady at \$2 to \$2.25.

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