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RURAL NOTES.

A PRIZE is to be awarded at the Chicago Fair this fall, for the fastest walking horse. This is a move in the right direction, and should be copied by all agricultural societies.

THE Toronto Earth Closet Company are advertising a cheaper article, which they offer for \$10. But a home-made one will answer every purpose for dwellers in the country.

No portion of the country is suffering from drought the present season. But there are sections where the moisture is in excess, and where drainage would be of untold value to the growing crops.

FLOUR of sulphur is the best remedy for lice, on hogs. The sulphur may be sprinkled on the hogs and in their beds. While it will kill the lice, it will not hurt the hogs; indeed, they are said to be the healthier for such a dusting of their coats.

A DAB of soft soap in the crotch of a fruit tree during a dropping season like this, will save much time and trouble in getting rid of bark lice and borers. The rains will wash the soapy liquid into the interstices of the bark, and prevent insect nesting, incubation and hatching.

THE Agricultural College at Cirencester, England, has been a failure in the education of farmers, and the cause is suspected to be its almost exclusive class-room teaching. Another institution has been commenced which is to combine practical with scientific instruction. This is much more likely to succeed.

THE best time to kill weeds is as soon as they appear above the surface of the ground, or even before they do so. A slight brush with a garden rake, or in the field with a light harrow, will destroy them at this early and tender stage of their existence, thereby saving much needless toil on the part of the cultivator.

GEORGE GEDDES, of New York, has a field which for more than three-quarters of a century has been manured with nothing except clover grown upon it and ploughed in, upon which has been grown wheat, corn, oats, barley and grass. For fifty years plaster has been used upon the clover, and the land shows no diminution of fertility.

"My cows preferred this ensilage to meal," is the latest exaggerated eulogy of the new fodder we have met with. It is modified, however, by the remark, "at least they would eat the fodder out from under the meal, leaving the latter to be

licked up last." Here is one ensilogist, at any rate, who is anxious to speak the exact truth about the matter.

MICHIGAN has a very stringent law for the protection of small birds, which forbids the killing of a robin, nighthawk, whippoorwill, finch, thrush, lark, sparrow, cherry bird, brown thrasher, wren, martin, oriole, woodpecker, bobolink, or any other song bird, under a penalty of \$5 for each bird killed; and for each nest robbed, ten days in the county jail.

THE New York Sun gives an account of a curious machine which cleans horses by steam, and is in daily use at the Third Avenue street railway stables. Its regular rate is ten horses per hour, but at a recent trial, when extra steam was put on, it cleaned one hundred and twenty-two horses from 7:30 a.m. to 5:40 p.m., with an hour's intermission for dinner. The work is not only done quicker, but more effectually than by hand.

IN the five months ending May, British India sent to England 4,470,867 cwt. of wheat against 4,886,761 cwt. which came from the Atlantic States in the same period. The Indian wheat export has quadrupled in two years, and the best judges say it needs only a few light railways to enable North-Western India to become the chief wheat-exporting country in the world. Britain will doubtless encourage the new industry to the full extent of her power, for the ability of India to consume British goods is only limited by the ability to pay for them.

SOWED lawns are usually failures because the seeding is too thin. Two examples have come under our notice the present season. In the one case, ten pounds of blue grass seed were thinly scattered over an acre of land, the result being nil. In the other case, a bushel was put on a quarter of an acre. The result is, in five weeks, a beautiful green carpet. Charles Downing says, "If you would walk on velvet, sow from four to six bushels of seed to the acre." At this rate, the cost is about one-tenth of what that of sodding would be.

THERE seems to be virtue as well as diversion in whistling. An old farmer says it has been his rule not to have a hired man on his farm who was not addicted to this habit. A whistler is cheerful, good-natured, kind to animals, not apt to find fault with his food, or to complain of a little extra work. Sometimes girls take to whistling. Mrs. Grundy pronounces it unlady-like; but as every Jack has his Jill, whistling may indicate the possession of good womanly qualities, perhaps.

A CORRESPONDENT of the *Farmers' Review* says:—"Save manure by making a cover over it. Mine is made after an idea that I got from the awnings in villages. I used fourteen-foot boards, matched and painted them; had braces from the plate to the side of barn, and rods over the roof to the posts or plate of the barn, instead of posts, which would be in the way of hauling out the manure. About one-half of the farmers throw the manure under the drip of the eaves, and from one-fourth to one-half the value of it goes into the nearest stream."

THE following varieties of apples were reported by the American Pomological Society at the session of 1881, for cultivation in Minnesota:—Ben Davis, Duchess of Oldenburg, Eggar Red Streak, English Russet, Fall Queen or Hass-Gross Pommier, Fameuse, Golden Russet of Western New York, Late Strawberry, Maiden's Blush, Plumb's Cider, Rambo, Red Astrachan, St. Lawrence, Sops of Wine, Tetofsky, Tolman's Sweet, Utter, Wealthy and Willow Twig. While all of these varieties have fruited in the State, the Wealthy, Duchess of Oldenburg, and Tetofsky are the most reliable.

A PARAGRAPH of anonymous authorship is "going the rounds," assuring those who have been annoyed by the irrepressible dandelion on their lawns, that they may take heart. The pest will pester them no more. Gardeners now cultivate this weed for greens, and it finds ready market. Having thus become a useful plant, bugs will eat it off above the ground, grubs will saw its roots in two, the sun will scorch it to death, the rains will drown it, the hail will thrash it to strips, and boys will dig it out and steal it. If this is to be the result of the adoption of the dandelion into the family of useful vegetables, it is a pity that a similar process could not be initiated in regard to the Canada thistle.

SOMEBODY has condensed a whole volume of wisdom concerning wheat culture into a very few maxims, which are put on this first page of the RURAL CANADIAN that they may attract the eye of every reader:—1. The best soil for wheat is rich clay loam. 2. Wheat likes a good, deep, soft bed. 3. Clover turned under makes just such a bed. 4. The best seed is oily, heavy, plump and clean. 5. About two inches is the best depth for sowing the seed. 6. The drill puts in the seed better and cheaper than broadcasting. 7. From the middle of September to the last of October is the best time for sowing. 8. Drilled, one bushel of seed per acre; if sown broadcast, two bushels per acre. 9. One heavy rolling after sowing does much good. 10. For flour, cut when the grain begins to harden; for seed, not until it has hardened.

FARM AND FIELD.

TREES AND THEIR USES—THE ELM.

The Elm, or Ulm, as they call it abroad, is a fine tree, and well known to us all. It lives a long time, but its timber is most useful when it is cut down at about the age of seventy years. It is hard wood, but not so durable as oak or fir. The trunk is straight and strong. One tree in Switzerland is said to have been seventeen feet in diameter. The leaves differ very much in different sorts of elms. Some trees have very small and numerous leaves; the leaves of others are large and long. The smaller the leaf, the longer it remains on the tree in autumn.

The elm is one of the most useful of all trees. It grows quickly, and is content with almost any soil except a very wet one. It likes best a stiff, strong land.

A French king, Henry IV., made elm-planting very common in his country. His great minister, Sully, caused these trees to be planted in churchyards and hedgerows, and many old trees used to be called *Henri Quatre*, or *Sully*. No tree forms so beautiful an avenue as an elm. There are some fine elm avenues at Cambridge and Oxford. Some say that the elm was not grown in England until some of the crusaders brought it here from abroad. Nor did the English elm find its way into Scotland until the two kingdoms were united. The magnificent elms at Madrid are said to have been transplanted from English soil by Philip II., the consort of Queen Mary.

Elm wood is used in ship-building, especially for the keel of the vessel. The naves of wheels are also formed of it. It is man's last home very frequently, being much employed by the undertaker in coffin-making. The cabinet-maker is very fond of those great knobs or warts which grow on ancient elms. When polished they look very handsome. Elm timber may be made like mahogany, when boiled and stained with a red dye. One valuable quality of the elm is its resistance to the rotting action of water. Pipes for conducting water from one place to another are almost always made of this wood. The tree is useful, too, in other ways. The leaves will feed cattle, and when boiled are good for swine. The Russians make tea of one sort of elm, and the Norseman dries the inner bark and grinds it up with his corn.

In wine-producing countries, young elms are generally chosen as props to the vine. The poet alludes to this when telling us how Adam and Eve employed themselves in Paradise:—

"They led the vine
To wed her elm . . . and to adorn
His barren branches."

Many insects spoil the timber of the elm, especially the goat moth, and another little creature about half an inch long. This latter pest bores holes through the bark and lays her eggs. When the beetle comes out of the egg it does immense harm to the tree. As many as 80,000 have been found in one elm.

The tree is also subject to a disease somewhat like cancer, and this often happens when it grows in a soil that does not suit it.

The Crawley elm, between London and Brighton, is hollow. It forms a room, floored with bricks; it has a door with lock and key. In the hollow elm of Hampstead there was a staircase leading to a turret on the top, where six people could sit. There were sixteen clefts in the trunk, which gave light to the staircase. Perhaps the finest elm ever known was one which grew in county Kildare, Ireland. Its two principal boughs fell suddenly one calm night, and they fetched five guineas in the market. The gigantic tree was uprooted by a violent hurricane, and when the

sawyers got to work, it was found to be quite hollow, and of small value as compared with its two great branches.

The wych-elm is the Scotch, or mountain elm. Its trunk soon divides into long and somewhat drooping branches. When long bows were in use, many were made of the wood of this tree. Very good ropes can be formed from strips of its bark. It is also highly valued by the carriage-maker. Its wood is nearly as good for shafts as that of the ash. The milkmaid, too, in the midland counties, likes a bit of wych-elm wood in her churn. She says it helps the butter to come quickly.

The wych-elm is considered more picturesque than its English sister, but this is a matter of taste, which each of our young readers may like to decide for himself.—*Chatterbox*.

WEEDS IN AGRICULTURE.

The relation of weeds to agriculture is so intimate that farming has almost come to be a business of weed killing. It is therefore to the point to show how this destruction can best be done, and not spend any time on that old and trite growl of showing up a weed in its worst light. It can be taken for granted that a weed is a bad plant and one that is not desired, and the vital part of the matter is to know how to best rid the land of the pests.

In the first place, it should be understood that a weed is not so different in constitution from a useful plant as to be killed by any agent, or in any way that will not also destroy the crop plants. There has frequently been a cry for some substance that could be put on the soil that would make it clean of weeds. This reminds us of the man that we saw not long ago that had a kind of manure to put around the apple trees to keep the coddling moth from the apples. There is nothing that can be dropped in a hill of corn that will make it weed proof, and at the same time permit of a vigorous growth of the corn. No panacea can be applied to a field of wheat that will destroy the Quack grass, and leave the crop unharmed. When a farmer has to deal with weeds, he must adopt methods which if applied to useful plants would lead to their destruction.

Weeds have seeds! This is not a new fact by any means; but it is here stated that the following part may be made the more impressive. Weeds grow from seeds just as other plants do; they may have other methods of propagation, but they go from place to place in the seed form more generally than any other way. Many of our weeds came from Europe, and then crossed the sea as seeds. Many of our weeds are spreading westward, and they do it by being carried in various ways in the form of seed. The first measure to be taken against weeds is therefore to not sow their seeds. Clover seed has probably been the vehicle by means of which scores of kinds of weeds have become wide spread. For example, a farmer in Michigan buys clover seed from New York or Massachusetts, and sows his fields with it; he may at the same time introduce into his mellow soil the narrow-leaved plantain, the ox-eye daisy, or some one or more other obnoxious plants.

The easiest way to kill weeds is while they are in seeds, provided the weed seeds are recognized. Every farmer cannot examine every seed he sows; but he can be very guarded in buying seeds, especially of those kinds that from their small size may be the means of introducing untold trouble into otherwise comparatively clean land.

Next to the keeping of the weed seeds out of the ground is the killing of weeds soon after germination. There are a number of reasons for this. First, they can be killed with greater ease while young. Take, for example, the weeds in a root

crop; if they are destroyed as they first make their appearance, the work is light to what it is a few weeks later. In the second place, the effect on the crop is not so bad. If weeds are left to grow until they are of considerable size, they extract a great deal of nourishment from the soil that the crop plants need, and in not getting it they are enfeebled. Every weed that grows takes the food from the soil, and as weeds are better able to survive in a struggle with cultivated plants, they will, if left to themselves, come out masters of the situation. The ancestors of the weeds have had to steal a living, so to speak, and it has become a second nature for weeds to get into the ground as quickly as possible.

The weeds are very sure to look out for their own kind of kindred, and will ripen and spread a large field of seeds. Look at the Canada thistle, one of the worst of weeds. It not only ripens a host of weeds, but provides each one with an airy balloon by means of which it is taken far away by the wind, thus securing a wide dissemination of the seeds of this pest. One farmer may keep his thistles from growing, while an adjoining neighbour lets his thistles seed down the whole region round about. Then there are the tick seeds and "boggar's lice," and "pitch-forks"—all weeds, and bad ones, that leave their seeds provided with hooks to catch onto the hair and wool of animals, and are in that way carried far from the plant that produced them.

If weeds cannot be killed in the seed—and it is out of the question to kill them when young—the next best thing is to keep them from going to seed. This is a difficult thing to do, and whatever may be said on weed-killing, it will be a long time before we have no weeds. Does it look like extermination when by actual count a single "Passley" plant has been known to produce a million seeds! and that in the short space of a few weeks?

"Weeds are thoroughly bad!" In one sense they are, and in another they are not. Indirectly they improve our agriculture, making it more systematic, offering a bounty or premium for labour. Without weeds, the lazy man would stand more nearly on a par with the worker. Without weeds, the soil would not be tilled as much as it now is, when properly tended; they may be just that sort of a spur to industry that it is well for every farmer to feel. This is certainly looking on the bright side of the matter; the side that says to the eternally vigilant that theirs is the victory.

Weeds may be like sins, or rather the temptations to sin, which overcome the weak but add strength to those that come off conquerors. This is a closing argument in favour of being a strong fighter in the battle against the weeds.—*Southern World*.

AN IMPROVED HARROW.

An ingeniously constructed harrow, in which all the parts in its movements in any direction will conform to the undulations of the ground, is patented by Messrs. Henry R. Burger and Joseph B. Simpson, of Fincastle, Botetourt county, Va.

The outer beams of the harrow, to which the teeth are attached, form a square harrow. Each beam is formed of angle iron, the flange of the iron projecting upward on the outer edge of the beam, thus making a harrow beam stronger and lighter than the ordinary construction. The ends of the beams are perforated to receive hooks that project upwardly from opposite corners of a triangular metallic block. This block has a central socket extending its entire length, into which is inserted an adjustable rod, which passes thence through a hole in a flange projecting downward from the metallic plate, provided with a series of adjustable holes, into any one of which the

threaded inner end of the rod may be inserted and secured by a nut. The inner end of these plates are formed into downward projecting hooks, each of which engages with the side of a central opening made in a metallic block placed at the centre of the harrow. Clevises are secured to the outer ends of the two rods, lying in line with each other. In the normal condition of the harrow, the four beams form a square; but if it is desired to widen the harrow in one direction it may be readily accomplished by adjusting the inner ends of the rods, along the line in which the harrow is to be widened, and placing them in holes nearer the outer ends of the plates. By this construction it will be seen that the outer harrow beams are pivoted to each other at the ends, and will conform to the undulations of the ground. The tooth of this harrow is triangular, the triangle being formed of sides of unequal length, and is attached to the side of the tooth-holder by a bolt and nut passing through holes in the tooth that hold it at either of its angles, and the tooth-holder is bolted to the frame of the harrow.—*Scientific American.*

BEAN GROWING.

The land for beans should be ploughed early, and worked over once or twice before planting time, so as to kill the weeds and get it in good condition. The best time to plant I have found to be from the 1st to the 10th of June, and I prefer to plant as soon after a rain as the land will work well. I do not like to have a heavy rain fall on them before they come up, for two reasons. One is that they are likely to be clipped and not come up well, if the land is clay; and the other reason is that a crop of weeds will come up and start with them. I use from half a bushel to three pecks of seed to the acre, and prefer to sow with a force seed wheat drill, using every fourth drill, which makes the rows about two feet apart. This I consider wide enough for the Navy bean, but some of the larger varieties I should plant thirty-two inches apart. I can plant three rows at a time with the wheat drill at the first-named distance. The beans do not need much cultivation, as when planted close they soon shade the ground so that nothing else can grow; but it will pay to run through them with a cultivator as soon as they are long enough, and after each heavy rain, until they shade the ground. In an ordinary season two cultivations will be enough, while in some seasons they may need three or four workings.

CHESS OR CHEAT.

The wheat fields show quite an amount of chess, and it is creating quite a discussion among farmers. Some claim that wheat will turn to chess; others that it is caused by pasturing in the fall and spring; and others that it is an injury to the male plant by freezing. Some advance the theory that if left alone chess will turn to timothy. (1) Will wheat turn to chess? (2) Will pasturing cause it to do so? (3) Is there any sex developed in the wheat plant before the blossoming occurs? (4) Will it turn to timothy? (5) What is it?—*C. N. Coggeshall, Dickinson Co., Kansas.*

[(1) No plant can turn into another any more than an ox can turn into a horse. Plants are as distinct in their species as animals. In stalk and foliage "chess" somewhat resembles wheat, and as the conditions of a wheat field are favourable to its growth, the above-mentioned ideas have prevailed in regard to it. (2) No. It is a weak weed, which the natural grasses prevent growing, so its seeds remain in the ground until a small grain or other crop provides proper conditions for its growth. Its seeds are threshed out and remain with the wheat grain, and is consequently sown

with the wheat seed, thus being perpetuated by the farmer himself. (3) Both sexes of the wheat plant are in the blossom in all stages of its development from the bud. There is no male wheat plant in distinction from a female plant; both sexes are in one. (4) No. It cannot. (5) Chess, cheat, or brome grass, is the *Bromus secalinus* of botanists. There are three other species in the same genus, also called "cheat" or "chess," which somewhat resembles the *secalinus*.—*Ed. Farmers' Review.*]

MAKING HAY.

JOSEPHINE POLLARD.

Out in the meadows tossing the hay,
Rich with the scent of clover,
Out in the meadows the livelong day,
Turning the grasses over,
Robert is busily working away
From morn until day's declining;
Working away and making hay
While the summer sun is shining!

He whistles and sings, for his heart is light,
And gay as the sunshine o'er him:
And smiles illumine his face so bright,
As he tosses the hay before him;
And in and out through his thoughts, all day,
Are fancies their threads entwining,
While he's working away and making hay
While the sun is brightly shining.

Winds of summer are ready to blow
Over the grasses and under,
As soon as the farmer chooses to go
And scatter the heaps asunder;
And out on the high road far-away,
The perfumed message divining,
Some one will say, "They're making hay!
And brightly the sun is shining!"

Then after the toil of the day is done,
The cattle are under cover,
When low in the west declines the sun,
Where goeth the farmer lover?
Toward the village he taketh his way,
His heart with a message laden;
For the lad so gay has something to say
To-night to a certain maiden.

And under the balmy evening skies,
In the glorious summer weather,
With stars a-gleam in each other's eyes,
They wander away together.
And should you meet them (perchance you may),
You'd know by her blush so charming,
That love has a way of making hay
Unknown to the rules of farming.

PURITY AND VITALITY OF FARM SEEDS.

Prof. J. M. McBryde, in his address before the East Tennessee Farmers' Convention at Knoxville, Tennessee, submitted facts and figures from analyses of seeds that astonished his hearers. A sample of orchard grass seed gave only 20 per cent. of pure seed, while 80 per cent. was empty florets or husks without grain; one of blue grass, while giving 92 per cent. of pure seed, only 5 in 100 germinated. Red clover gave 55 per cent. of pure seed, but only 42 in 100 germinated. White clover gave 97 per cent. of pure seed, but only 3 in 100 germinated. A like ratio is found in other seeds, the impurities being numerous and often seeds of weeds. The farmer buys seeds—good ones, as he supposes—sows them with care, and failing to get a catch takes it for granted that the season being unfavourable is the cause. The subject is one of vast importance, and demands a prompt and summary remedy.

APPLYING FRESH MANURE.

By fresh manure we mean not only green dung from the stables, but that which has been in the compost heap a month or more, undergoing fermentation. It may be true that in the compost heap, properly handled, there is no loss of fertilizing material. There is frequently loss from surplus manure lying idle in the compost heap, or barn cellar. Of course there is occasion, in the regular routine of farm crops, to apply large quantities of manure at one time. But where the manufacture of manure in the compost heap is made a leading business, there will be a surplus

for which no hoed crop calls. Any surplus fertilizers in midsummer or autumn can be used economically upon the grass crop. They will begin to draw interest as soon as sown, payable at the next harvest. If you have any meadows that out less than two tons to the acre, top-dress as soon as the hay is gathered. If they yield two tons, top-dress and get three tons or a second cutting. Keep manure on interest, and it will pay better than Government bonds.—*American Agriculturist.*

ROLLING ON LIGHT SOILS.

A New Jersey farmer, writing to an exchange, says: "Rolling is another popular process that may do much mischief upon light soils. The soil being very friable, the roller is not required to break up lumps and clods, and the harrow will compact the ground sufficiently for all purposes. The roller packs and hardens a light soil, and causes it to dry out very rapidly, while to retain moisture it should be kept loose and soft. The difference between rolled and harrowed fields is very marked after a long-continued drought. The rolled fields dry out, rye and wheat being light and small. The only useful effect of the roller on light soil, I am confident, is in the spring upon grass or grain fields, only to level and prepare them for the mower or reaper."

SOD AS A FERTILIZER.

An old farmer, writing to an exchange, says: "There is no way manure can be furnished so cheaply as in sod. Sod not only enriches the land, but improves it mechanically, the decay of the roots in the sod making the soil, and that too of the best quality. Sod manure is always adapted to the soil, and no testing is necessary to know whether it will benefit the crop or not, as with commercial fertilizers. With the sod manure it is all gain, both in mechanical and fertilizing effects. To get best results the rotation of crops should be quick, and the land got into clover and grass sod as quick as the fourth crop, so that the organic elements of the soil are not too heavily drawn upon."

The Colorado and far west papers report an entire absence of the famous potato beetle this year. He has packed up his trunk, taken his grip sack in hand, and left for good. Such being the case, it will be but a few years more before he will have deserted this whole country and have gone east on a European tour, of uncertain, but we hope eternal, duration. Unlike the star of empire, he travels against the sun.

JERUSALEM antichokes have long been known as a most valuable addition to the rations of hogs, but the fact that they are even more valuable as an addition to the diet of cattle seems to be less generally recognized. They are hardy, yield fair crops on poor, and very large ones on rich soil: are more nutritious than the potato, and once planted there will be no need for replanting, as they are not easily got out of a piece of land after they have become established.

MANY farmers throw away the old brine in beef and pork barrels and fish packages. Sometimes they throw it on a grass patch, or under a tree, and kill the vegetation. If they desire to kill vegetation with it, they should pour it on patches of burdocks or thistles, or around trees that are worthless. It is better, however, to use it for manure, in which case it should be applied with judgment. It may be applied to asparagus beds or quince trees liberally, but to other things sparingly. Ordinarily, the best disposition to make of it is to pour it on a manure or compost heap, and allow it to be absorbed.—*Exchange.*

GARDEN AND ORCHARD.

TOADS IN THE GARDEN.

We hear and see a great deal about protecting the insect-destroying birds; we even see occasionally a piece in the agricultural journals headed "A Plea for the Mole," followed by an argument to prove that the villainous little blind creature does not injure vegetation; but we seldom hear or read of the services rendered the farmer and horticulturist by the despised little toad, while we will venture the assertion that in any given area in this country the toads destroy more insects injurious to vegetation than do the birds in the same area, and that too without doing any mischief, as the toads live entirely upon insects, while the birds, with few exceptions, do not; and as to the mole, we will guarantee that if his case should come before a jury of intelligent farmers or gardeners, he would be found guilty of criminal destruction of vegetation, and especially of seeds. Not so with the toad, which subsists entirely upon insects. Not only do they subsist upon insects, but they destroy those which the birds cannot reach—those which depredate at night, when we and the birds are asleep. So highly are they appreciated in Europe, that they are there an article of merchandise.

The market gardeners near London, England, purchase toads from the Continent at fourpence each.

A toad put into a hot-bed will effectually protect the plants from the ravages of insects, and a number of them in an ordinary garden will materially reduce the number of insects, and thus protect the plants from their ravages.

So far from participating in the common feeling of contempt for the humble little reptile, we have a profound respect for him on account of his friendly services in aid of our perpetual warfare upon insects injurious to vegetation. Instead of being kicked and trod upon, he should be protected by all good citizens. Any one who will take the trouble to watch a toad for one hour some summer evening, will be astonished at the skill and celerity with which the little apparently slothful creature captures its unwary victims. Very close attention is necessary to see the operation, so quickly its long tongue is whipped out after its prey.

CHILDREN'S GARDENS.

I wish every mother in the country knew the great satisfaction to be derived from the little plots of land the children cultivate as their own. No matter how small, it has a peculiar charm, and its mixed and incongruous plantings often yield astonishing results. No radishes so crisp as those your little son will lay beside your plate, the reward for his toil and care. No flowers so beautiful as those your loving daughter brings in some bright spring morning, nurtured and tended by her own hands. The earliest hepatica of the woods grows serenely in the shadow of a "May tree," and wild violets flourish in Annie's gentle care. In our home each child has a plot of ground and an apple tree, the fruit of which, always fair and beautiful, is shared generously, and the surplus sold for pocket money. Sometimes an early melon finds its way to our table from the garden of one of our industrious boys, and is praised and appreciated as a reward for his labour.

Little two-year-old has a garden too, and while we try to teach him not to pull up the happy family of flowers and vegetables that thrive there, we delight in his glad murmur as he roams like a true Bohemian in the summer sunshine, saying, "My gardee, my gardee," and taking a whole

potato from the cellar where his restless feet often wander he plants it just deep enough for the hens to pick out, and, nothing daunted, sows a handful of peas over it. But as he grows older he will learn that this is not the road to success, and try to copy the care and vigilance displayed by his elders. Even "Baby Hope" has a little circle filled with sweet wild flowers brought from the woods this spring, "to be ready when she can gather them," the children say—and our eager young botanists are ever ready to search for a new flower to transplant into "Hop's garden." By such innocent pleasures is home made happy and beautiful.—*Ex. Cor.*

INSECT REMEDIES.

As timely to the advent of the insect corps, we present the following remedies, most of which we have tried and found efficacious:

For the striped cucumber bug, so destructive to melon, squash and cucumber vines, light sprinklings daily of fine soot from the fireplace and hand picking. The bug will be found secreted under the clods, etc., near the vines in the day time, and may be crushed between the fingers. Fresh gas house lime scattered around the hills helps to keep them off. It should not be put upon the plants.

For the little flea beetle or cabbage and tobacco plants use soot, as above, or fish brine sprinkled over the plants. Also plaster and phosphate.

For the cabbage worm or larvæ of the cabbage butterfly, soot, cayenne pepper, copperas water, salt, plaster, and incessant hand picking. Also a ruthless war on the butterflies. This pest is fearfully on the increase in our midst, and calls for stringent preventive or exterminating measures.

For the Colorado beetle, another very troublesome insect, London purple, Paris green, both with caution and after every rain. Ceaseless hand picking is often the best remedy.

For the squash bug, hand picking and crushing.

For the cut worm, lime, salt, thorough drainage, swine.

For the tobacco fly, cobalt, turkeys, hand picking, night fires. The latter might be made very effective in cases of hurtful insects that fly at night.—*Rural Messenger.*

SUNLIGHT AND FRAGRANCE.

Attention has recently been called to the marvellous fragrance of the flowers and fruits that grow in Siberia and the more northern portions of the various countries of Europe. The few fruits that grow there are also very highly flavoured. The like is also true of the flowers and fruits of the upper peninsula of Michigan. The finest strawberries found on this continent are raised on the southern shore of Lake Superior. They are of very large size and have a very high flavour, and are so fragrant as to render them desirable for the aroma they throw off. Observation shows that continued sunlight produces aroma and high flavour the same as a high temperature produces the quality of sweetness. In a high latitude the days during summer are very long, and it is at this season that the flowers blossom and the fruits ripen. The addition of two or three hours of sunshine has a wonderful effect in producing flavour and fragrance. The quantity of essential oil that can be extracted from flowers grown in Sweden is much larger than can be obtained from the same kind of flowers raised in the south of Europe. Flowers raised in houses are less fragrant than those raised out of doors, as they get less light. It is believed in England that the electric light may be made useful not only in increasing the growth of plants, but in adding to the fragrance

and flavour of fruits subjected to its influence. Experiments already made show that flowers grown in houses lighted by electricity during the night are much more fragrant than those which grow out of doors.

PREPARING FOR WINTER FLOWERS.

Those who have small greenhouses or cultivated flowers in their windows, have set out their geraniums and other quick-growing plants for the summer. Many make the mistake of taking up these plants in autumn, after they have grown all the season in the open ground, and potting them, to be replaced in the window or greenhouse. The result will always be "long-legged," misshapen plants, which, instead of blooming satisfactorily during the winter, will take a long time to recover, and never be worth as much as new plants from cuttings. Such plants may be prepared for, this month and next, and with very little trouble. Of course those who have greenhouses with appliances for propagating need no directions, but many lovers of flowers have to content themselves with such plants as may be grown in the windows of the living rooms. These become attached to their plants, and when one is set out in the bed they expect it back again. When such a plant goes out, consider it thrown away, for it may as well be, and set about replacing it. The following method will give a few plants with little trouble. Take a common store box, such as a starch or soap-box, knock off both cover and bottom, and if need be strengthen it with extra nails. Tack over this a piece of cotton cloth and the frame will be ready. Select a place where the soil is light and sandy, or if the ground is all stiff, spade in some sand or coal-dust to make it light and open, and place the frame over it. If cuttings of geraniums, cupheas, verbenas, or other such plants are placed in the soil and covered with the frame they will soon take root and form nice specimens, which, when they begin to grow, may be potted and be ready for winter. If the frame is where it will be shaded in the middle of the day, all the better; if not, it may be tilted a little when the sun is very hot, to give ventilation and prevent overheating.—*American Agriculturist.*

COMPOST FOR THE GARDEN.

Vegetables need a cool, loamy, moist soil, deeply broken and thoroughly pulverized. All observant Southern gardeners have noticed the beneficial effects upon the soil produced by the very heavy mulch used on Irish potatoes after it becomes partially decomposed and incorporated with the soil. It darkens its colour, thus increasing its power of absorbing heat; it improves the mechanical condition of the soil, rendering it more pulverulent, and enabling it to better absorb and retain moisture; it adds to the supply of plant food in the soil whatever the substance used for the mulch contains, and in a readily available form.

Now, let us learn a lesson from this observation, and utilize otherwise wasted material in preparing a most valuable vegetable compost for the garden.

Select some convenient point readily accessible from the garden and house. Dig out a space ten feet in diameter and two feet deep. Into this pit collect the weeds, grass, trash and scrapings of the walks in the garden, sweepings of the yard, scrapings from the fence corners, and occasionally scrapings about the horse and cow lots. When any considerable quantity of green vegetable matter is thrown into the pit, sprinkle air-slacked lime over it and throw in a layer of earth. Empty all slops from the house and kitchen over the heap. Throw the ashes and soapsuds, sweepings from

the fowl-house—indeed all refuse matter collected about the premises—into the heap. Continue this through the summer and fall. Before ploughing the garden in winter cut down the heap, and mingle with it a few sacks of high grade superphosphate, and spread broadcast over the soil. A large quantity of vegetable mould may be collected through the year in this way, which, from our experience with it, is inferior to nothing we have ever applied. A quantity of good manure may thus be collected principally from substances which would otherwise be wasted.—*Cor. Southern Farmer.*

TRANSPLANTING.

Experienced gardeners are apt to think that a rainy day is the only fit time for setting out plants, and will often delay a week or two longer than is necessary waiting for it, and finally plant when the ground is soaked and when they sink to their ankles in the soil. That is the worst time that could possibly be chosen, excepting when the ground is congealed with cold; for it is impossible that the mould, sticky and clammy while wet, can filter among the roots, or remain of suitable texture for them to spread themselves in, permeable to them and equally pervious to the air in every part, without anywhere exposing their tender parts to actual contact in chambers of corrosive oxygen. A rainy day is an advantage if the plants are set before the ground has become wet, but the safe and sure way is to go for the plants as soon as the ground is fully prepared, no matter how dry the weather. A pail or bucket should always be taken to carry the plants in, having a little water in the bottom. The roots being set in this will absorb until the plant is so gorged that it will endure a drying air after being set in place. If the ground is very dry, water should be poured in before planting, which is very much better than pouring upon the surface, because of no injurious crust being formed; for a continually open surface during the growing season, to admit of free circulation of air and capillary action from below, are absolute essentials to free, profitable growth.—*Blairco.*

DRY ALL THE FRUIT.

The *Southern Standard*, of McMinnville, Tenn., gives the following sensible advice: "Dry all that you can in the best possible condition. When the time comes to sell, then do the very best you can. If your fruit is extra nice you will get a better price than he who has dried in the ordinary way, leaving the core in and the cut irregular. What we want to talk about now is the blackberry and whortleberry crops. We understand these crops are large everywhere, and will soon begin to ripen sufficient to gather. In gathering any fruit to dry, let it be ripe—not too ripe. Dry thoroughly and store away in a dry place, and you will have no trouble with worms." Vegetables of all kinds and sweet potatoes should be dried for winter use. Many incline to the belief that drying is far preferable to canning.

The dwarf white celeries are best—at least for early. The giant celery, however, is excellent—one of the very best. July is a good time for setting out in this climate.

Too many people plant only a first light crop of lettuce. It may be sown in August, and is still one of the most useful of vegetables. The winter varieties may be sown as late as September.

Bran from the butcher or groceryman, or salt left at the bottom of pickling barrels, should be put upon asparagus beds in the spring time. Or rock salt may be sown, and the spring rains will wash it to the roots.

BEES AND POULTRY.

KEEPING A FEW BEES.

I presume that many readers of the *Farmers' Review* have said: "I shall probably never make a business of bee-keeping, but I have often thought that I should like to keep a few swarms, even if they furnished only enough honey for my own use." To all such persons let me say that now is the best season of the year in which to make a start in bee-keeping; and that the best step to take, if one intends to engage in bee culture, is to visit some successful neighbouring bee-keeper, and kindly ask for his advice. As a class, bee-keepers have no secrets, but very freely make known their plans and methods of management; in fact, if approached with the proper spirit, some of them often become so enthusiastic in "talking bees" that it is a difficult matter to stop them. The advice of a practical, successful bee-keeper is often better, especially if it be put in practice in his vicinity, than that to be found in books and papers. I do not wish to be understood as discouraging the use of books and papers; far from it—they are all-important, and cannot be neglected without loss. If one is the owner of but a single colony, his library should contain at least *one* bee book, and he should be a subscriber to at least *one* bee paper. The idea that I wish to convey is, that each locality has its peculiarities, and the bee-keeper who is well acquainted with the peculiarities of his locality is the best qualified to give advice in regard to them, and that it is only when these peculiarities are well understood that the bee-keeper can expect to be the most successful.

Although I would not advise the beginner to purchase bees until all danger of loss is past—about May 1st in this latitude—yet there are many things that can be done by way of preparation; as, for instance, when, by reading and visiting apiarists, the novice has decided upon the style of hive that he will use, he can employ his leisure time in making hives, painting them, putting together honey boxes, and getting everything in readiness, so that when the swarming season and honey harvest comes he will not be hurried. A plot of ground, where the little apiary is to stand, can be selected a few rods from the house, but in such a location that it will be in sight from the most frequented part of the house, and, if it is not already free from rubbish, it can be "slicked up," and then a load of sawdust drawn from some mill, and "dumped" conveniently near, so as to be on hand when needed to be spread around the hives to keep down the grass, and to make the apiary look neat and tidy.

It is better to buy bees near home, not only because the risk of transportation is lessened, but the purchaser can see the bees before buying them, and thus there is but little danger of any trouble arising from some mistake or misunderstanding. The prices for full colonies, at this season of the year, are about as follows: Black bees, in box hives, \$5; in movable-comb hives, about \$7. Italians will seldom be found in box hives; in movable-comb hives they are worth about \$9. These prices are for good strong colonies, and, as a rule, beginners should purchase no others.

I presume that the fear of stings deters many people from keeping a few bees, but if such persons would only purchase a colony of pure Italians, in a well-made movable-comb hive, furnish themselves with a good bee "smoker," and, if very timid, with rubber gloves, and then follow the instructions of some good bee book, they would be astonished to see how easily, and with what freedom from stings, bees can be handled. If farmers, mechanics, and professional men—in fact, if people in general, ladies included, only knew how easily bees can be managed, I think

that the coming season would find many tables well supplied with that most healthful and delicious of sweets, pure honey, to whom it has hitherto been almost a stranger. A few colonies of bees require but little care, and, by a little forethought, can usually be so managed as not to interfere with the regular occupation.

Eight years ago a well-to-do farmer, living within a mile of the writer, began bee-keeping by purchasing a colony of black bees in a box hive. He read bee books and papers, transferred his bees to movable-comb hives, Italianized them, used comb foundation, bought a honey extractor,—in fact, managed his bees upon the most approved plans. During the honey season many of his "noonings" were spent in caring for his bees, his wife often lending a helping hand. Although he sold a few colonies each year, his bees finally increased to about 80 stocks; and he found them so profitable that he thought quite seriously of letting his farm on shares and devoting his whole time to the bee business. But the severe winter of 1880-81 followed, and spring found him the possessor of only seven colonies. This one "streak of bad luck," the only one of the kind in seven years, discouraged him somewhat. He traded three colonies for a cow, bought more cows and a creamery; and went into the butter-making business. His four remaining colonies were weak, but they built up and increased to eight, besides furnishing some honey; and next fall will probably find him in the possession of from 16 to 20 stocks, and perhaps 400 or 500 pounds of extracted honey. Another farmer living near is the owner of a "sugar bush" of about 500 maples. In making 500 pounds of sugar, he and his team and his two sons perform twice the labour that the bee-keeping neighbour does in obtaining 700 pounds of honey; while the capital invested in the sugar-making business is much larger than that invested in my neighbour's apiary; besides, honey is worth more per pound than sugar.

It is generally admitted that a few colonies in a place are more prosperous and store more honey, per colony, than where they are kept in large numbers. If a dozen colonies of bees were kept upon each farm, much of the large quantity of the honey that now goes to waste would be saved, and the honey crop of the United States would rival in magnitude that of its wheat crop.—*W. Z. Hutchinson, in Farmers' Review.*

POULTRY'S PLACE.

The position of poultry on the farm, and as a farm crop, should be esteemed of as much importance, ordinarily, as the wheat or corn crop. There are some farms that are not suited for raising poultry and eggs on a very extensive scale, and on such it would be folly to attempt it. On such farms and country places all that should be attempted is the keeping of as many good laying hens as possible. These will be a source of considerable profit, and also something for the women and children to pet.

But on a farm where general farm crops are raised, and on farms where cattle and sheep are pastured to any extent, fowls of the different varieties can and should be raised in quantity, and not only for the village and city market, but for the owner's table. Poultry is regarded now by the average farmer as a luxury instead of an article of food. All through the sickly spring weather, the summer's burning heat, and autumn's arduous labour, does the average farmer eat salt pork, or very high-priced fresh beef, while he could have fresh poultry at an hour's notice if he only made a little effort.

They say, "Oh, it's too trifling a business." Let us see. Fifty chickens of any of the larger

breeds will, at six or eight months, dress five pounds each. This will give us two hundred and fifty pounds of nutritious food flesh. A flock of fifteen turkeys, at killing time, through the first first winter months, will dress, if of the improved varieties, twelve pounds easily. This will give one hundred and eighty pounds of food. Now, allowing seventy pounds for geese, guineas and quail, we have six hundred pounds of the very best of meat, and not one hundred head of poultry need be raised.

The children and mother could attend to these easily, and would do so if they only had a little encouragement and funds to procure breeding stock with from the husband. They should be allowed a fair price for all the fowls that are used on the family table, and all the proceeds of sales of poultry and eggs. In this way you can teach them the value of money, and to be industrious and independent.—*American Poultry Journal.*

A GOOD CHICKEN STORY.

An irascible sea captain settled down to Portland life by the side of a well-tempered man, and the two got along very well until the hen question came up. Said the captain:

"I like you as a neighbour, but I don't like your hens, and if they trouble me any more I'll shoot them."

The mild-mannered neighbour studied over the matter some, but knowing the captain's reputation well by report, he replied:

"Well, if we can't get along any other way, shoot the hens, but I'll take it as a favour if you will throw them when dead over into our yard and yell to my wife."

"All right," said the captain.

The next day the captain's gun was heard, and a dead hen fell in the quiet man's yard. The next day another hen was thrown over, the next two, and the day after three.

"Say," said the quiet man, "couldn't you scatter them along a little? We really can't dispose of the number you are killing."

"Give 'em to your poor relations," replied the captain gruffly.

And the quiet man did. He kept his neighbours well supplied with chickens for some weeks.

One day the captain said to the quiet man:

"I have half a dozen nice hens I'm going to give you if you'll keep quiet about this affair."

"How is that?" said the quiet man. "Are you sorry because you killed my hens?"

"Your hens!" said the captain. "Why, sir, those hens belonged to my wife! I didn't know she had any until I fed you and your neighbours all summer out of her flock."

WASTED SWEETNESS.

Mr. W. Z. Hutchinson, in the *Rural New Yorker*, says:

"There is, probably, enough honey that goes to waste for want of bees to gather, to sweeten all the pies, cakes and cookies that are baked. Upon nearly every eighty-acre farm there is enough honey secreted by the flowers each year to furnish its owner with sweetening power from honey-harvest to honey-harvest. It is admitted by our best apiarists that a few colonies in a place give better results than a large number; therefore if the bees were scattered about, a few colonies at each farm, there would not be so much sweetness wasted. To be sure there are, and probably always will be, people who make a specialty of bee-keeping, owning their hundreds of colonies; and that is all right; it is to such persons as these that we are indebted for the improvements that have made bee culture the safe, pleasant and profitable pursuit it is; but this need not deter any farmer

from keeping a few colonies that will supply his table with that most delicious and healthful of sweets, pure honey. They will probably find bee-keeping to be one of the most fascinating occupations in which they were ever engaged."

TOULOUSE GEESE.

Toulouse geese, when not inordinately forced for exhibition, are hardy, early layers, and reasonably prolific, often raising two broods of goslings a year. The young early take care of themselves on good pasture, and grow with astonishing rapidity. It is not well to let them depend wholly upon grass, but at first to give a little wet-up oatmeal daily, and afterwards a few oats or handfuls of barley, thrown into a trough or shallow pool, to which they have access. Geese bear, with little danger, any degree of pampering and stuffing, but in our experience this is likely to produce such accumulations of internal fat as to prevent fecundity. These fine fowls attain, on a good grass range, nearly double the weight of common geese, and, forced by high feeding, a pair have been known to reach the weight of sixty pounds. Twenty-pound geese are not rare. Early goslings, if well fed, will attain that weight at Christmas, and even a ten-pound "green gosling" is a delicacy which might well suggest the devout proverb of the Germans that a "Good roast goose is a good gift of God." The fact is, that common geese make a poor show upon the table unless they are very fat. This is distasteful to many persons, and they can hardly be very fat before the late autumn, because we need grain to fatten them. With this variety, however, and the Embden, which matures early and attains a great weight also, it is different; the goslings are heavy before they are fat, carry a good deal of flesh, and are tender and delicious early in the season, when simply grass fed, or having had but little grain.—*American Agriculturist.*

FEEDING YOUNG CHICKENS.

Fully nine-tenths of the mortality amongst poultry, from sickness or disease, occurs while the chicks are still in the "downy" state, and the majority of this loss occurs from improper food, and careless or ignorant feeding. Corn meal, which is far too generally used, is unfit for young chicks, being too heating for their tender and immature digestive organs. Corn meal has killed more young chicks than rats. The best food we have ever found for young birds is stale bread either crumbled up and fed dry, scalded and fed when cool, or else merely moistened in fresh milk. Where milk is abundant, it should always be used, and if the young birds get plenty of milk, in some form, they will grow so rapidly as to astonish those who have never given milk liberally to their poultry. We know of one breeder, a large dairyman in Chester county, Pennsylvania, who feeds the principal part of his refuse milk to his poultry, old and young, and his birds are not only singularly free from disease, but large, and finely developed in body and feathering. This breeder gives milk the credit of it all, but it may be due in part to excellent care.—*American Agriculturist.*

FUMIGATING A HEN-HOUSE.

During the day, when the hens are all out of the house, close the doors and windows, and touch a burning match to a small quantity of sulphur, which may be placed in a saucer or any other convenient dish. When you are sure it will burn, go out and close the door. You need have no fear of a conflagration, as I never heard of any danger attending the operation, providing no material like straw is allowed to come in contact with the burning sulphur. But let us tell you, sister fan-

cier, although fumigation is very good in its way, it will not impart the delightful odour of cleanliness, that a thorough whitewashing, with a little carbolic acid added, will; also, nothing will so speedily "nip in the bud" any infectious poultry malady as an immediate and thorough application of the above.

TO EXTERMINATE HEN LICE.

If in a house that is close, get an iron pot, in which put a pound of brimstone. Heat a piece of iron three or four inches in diameter red hot, and put on the brimstone; then shut the house closely, and let the fumes have possession for two or three hours. Then, after sweeping and dusting the house clean, give it a thorough painting with strong lye, afterward another with kerosene. If the house is not close enough to be fumigated (and the fumes will usually do some good, even if the house is quite open), do not omit the washing. Get dust baths for the fowls, in which put sulphur, and line the nests with tansy.

BUMBLE FOOT.

Bumble foot is a wart corn, a lump on the bottom of the foot, and is usually caused by jumping from a high perch on to a hard floor. When the lump appears to contain matter, cut it open; press the matter out, wash the foot with warm Castile soapsuds, and keep the fowl in a separate coop on a bed of straw until the foot is well. To prevent this disease, put the roosting perches nearer the floor, or cover the floor with four or five inches of dry earth, or else make a ladder for the use of the fowls.

Dio Lewis says that raw turnips will sustain human life and strength far beyond corn or potatoes; if you are a spring chicken don't be afraid of going out of fashion for all he says.—*Detroit Free Press.*

Eggs can be preserved in the best and most effective manner in common lime water at a low temperature, and there is no necessity for trying experiments. When the eggs are kept in a liquid they lose no moisture by evaporation, but when kept dry they lose some of their water, and their quality is thereby deteriorated.

Dry earth is unquestionably the best thing in the world for the dusting bin. It may be procured with a very little trouble during a dry spell in summer. But if not attended to at the proper time, or if the supply gives out, then coal ashes are a very good substitute. One great merit which they possess is that, as taken from the stove or furnace, they are so very dry. The dust bin in the fowl-house should be so arranged as not to gather dampness from the ground, for the drier its contents can be kept the better.

The coarse, rough scales on the legs of poultry are caused by a small louse which burrows under them, and produces irritation of the skin and the discharge of matter which forms scabs. These insects cannot easily be reached unless by some penetrating application which is forced under the scabs. An excellent method is to stir a tablespoonful of kerosene oil in hot water, to fill three or four inches in a pail, and then to put the fowls into this bath, one after another, until the legs are well soaked. This should be repeated until the scales are softened, when a mixture of sweet oil and kerosene in equal parts may be brushed well into the scabs with a brush.

NATHAN BRISCOE, a farmer living in Ernestown, near Napanee, while handling bees on Sunday, the 2nd inst., was stung on the forehead by one, and died in fifteen minutes. Briscoe was 78 years old.

THE DAIRY.

GUERNSEYS AS MILKERS.

The *London Field* has this to say of Guernsey cattle: "There is a structural limit to the production of every cow—that is, in the actual mechanism of the animal itself. There are no two animals made exactly alike, inside or out. Any difference in the formation of the internal structure might make a difference of many gallons yield in the course of the year. This does not infer that the anatomy of cows is in any way different; but there are undoubtedly structures better formed for produce than others.

As regards the breeding of good dairy cows, it is always allowed that like, to a certain extent, produces like, externally and internally. Then, again, there is the law of variation, against which the breeder of good stock always has to struggle. Be it as it may, the only safe road to certainty, or, we might say, success, in breeding good milkers, is to breed from pedigree milking stock. This seldom can be obtained where a pedigree Shorthorn bull is used. You cannot have the milking type unless you breed animals which have been milkers. The Guernseys, both bull and cow, are descended from stock which have been esteemed for their large produce of milk and butter for generations. With regard to bulls for producing good milkers, it is sometimes argued that the milking properties of a cow invariably descend through the female line; but this gives no ground for any rule, as there are, and have been, many bulls which have produced good milkers. For instance, the Earl of Dublin and the Jamestown bull had this milking propensity.

The structural economy of a Guernsey allows her to convert the food she eats into produce far more perfectly than the ordinary dairy cow. Of course there are advantages in having massive-framed animals, in order to attain great weight when fatted out; but massive frames require a good deal to support life during the time they are in milk, leaving the remainder for the production of milk.

It is easier to infuse flesh into a milking breed of cattle than to create a "milking potency" in a fleshy breed. By selecting the large ones, and feeding the calves well, there is no doubt this breed might be made fit for any tenant farmer.

THE CARE OF COWS.

There is frequent trouble with cows when coming in, with their udders, from inflammation or swelling; and sometimes the difficulties extend to the failure of one or two teats, and occasionally to the entire destruction of the udder. We do not pretend to certainly account for all these things, but are of the opinion that much of it is the result of lack of careful attention to the cow when drying her up. If a cow is giving but little milk, and it is determined to dry her up, it is too frequently considered useless to let her go dry by a careful system of milking, but to let her go dry without drawing the milk from her udder. In this way, the liquid part of the milk is absorbed into the system of the cow, but the curd or cheese part of the milk remains in the reservoirs of the udder, and fills up the smaller and more delicate milk ducts, which become hard and destroy the future uses for which they are intended. When the fresh milk begins to flow again, these obstructed milk ducts derange the whole system of secretion. As a consequence, the obstruction of the full development of the udder and free discharge of the milk causes swelling, inflammation, and the destruction of part, if not all, of the udder. These causes are reasonable and natural. It is said that there is seldom a case of inflammation

of the udder of a cow where the calf has run with the cow until she weans it herself. The natural instinct teaches the cow not to wean her calf suddenly, for her own and her calf's sake. And the man or woman who has charge of a cow, at the time of drying her up, should carefully draw the milk from the udder before it becomes so hard as to obstruct the milk ducts, and remain there to destroy the usefulness of the cow. It is not necessary that a cow at the time of drying her up should be milked dry, but so as to draw off anything which might harden, and greatly injure or destroy the cow.—*Rural Home*.

CHURN DASHERS.

The farmers of Elmira, N. Y., have been discussing the subject of churns, in their Farmers' Club, and seem to think the old fashioned cylinder churn, with its almost solid dasher, still the best in use. That others that are greater agitators will bring the butter sooner, was admitted, but it was claimed that this haste was at the expense of considerable waste, forty-five minutes being required to get the best and the most butter from a given amount of cream. It would seem from the discussion, that besides agitation, the best results require compression. One creamery was referred to, in which, after experimenting, it was decided to use a dasher of solid wood, of nearly the same diameter as the churn, four inches thick, with a partially concave bottom. It takes power to work such a churn, but the results are satisfactory.

A SCHOLAR in a country school was asked "How do you parse 'Mary milks the cow?'" The last word was disposed of as follows: "Cow, a noun, feminine gender, third person, and stands for Mary." "Stands for Mary! How do you make that out?" "Because," added the intelligent pupil, "if the cow didn't stand for Mary, how could she milk her?"

THE dark ways of the American dairy are causing much comment in England, and there is a certain sound against acceptance of cheese from skim milk plus fat of swine, and butter on some other than a cream basis, unless the elements of these mixtures is plainly marked. Secretary Jenkins, of the Royal Agricultural Society, said in a recent address that makers of real butter and cheese, compelled to compete with the current adulterations, will not get fair value for their goods.

SEVERAL machines or devices for milking cows have come under my observation, none of which have proven of any practical value, however. I have given them all the most impartial and unprejudiced examination, and feel that I am doing none of them injustice in the general observation above written. There are milking tubes, in sets of four, generally made of silver or some imitation of silver, which are sometimes of use for milking cows with sore teats a few times, but their continued use is sure to injure the cow. I have known of their use in many cases, with no exception to the above. I have frequently conversed with a very intelligent mechanic who was a long time in the employ of an inventor who undoubtedly came nearer to perfecting such a machine than anybody else. He was very hopeful of success for a time, and in the course of his experiments tried every device known, but he now believes the milking of cows by machinery impracticable.—*O. S. Bliss, in N. Y. Tribune*.

MR. JOEL ROGERS has sold his farm, situated near Fordwich, in the township of Howick, to Mr. John Goggin, of West Durham, for the sum of \$7,600 cash. The farm contains 200 acres.

CREAM.

MISS GREEN (interrupting the Doctor sarcastically) Well, I don't know about that. The Doctor (rather tartly)—Vell, miss, vot you don't know would fill volumes.—*Bazaar*.

ONE man was asked by another with whom he was not on the best of terms, where he had taken up his abode. "Oh!" he replied, "I'm living by the canal at present. I should be delighted if you drop in some evening."

A GIRL heard her father criticised severely across a dinner-table. The careless critic paused a moment to say, "I hope he is no relative of yours, miss?" Quick as thought she replied with the utmost nonchalance, "A connection of my mother's by marriage."

"BEDAD, Pat, wud ye luk at 'em now?" Mike was gazing intently at the procession honouring St. Patrick's Day in the march. "See, now, the fellows phat drunks all the whusky, all on fut, and the fellows phat sells it all roidin'." Mike grasped a pregnant fact.

ONE of the old-time stage coach drivers, who had been on the road over half a century, says that life is put together considerably like a set of harness. There are traces of care, lines of trouble, bits of good fortune, breaches of good manners, bridled tongues, and everybody has to tug to pull through.

"PAPA," remarked the enfant terrible, who was mounted on the back of the old gentleman's chair, engaged in making crayon sketches on his bald head, "it wouldn't do for you to fall asleep in the desert, would it?" "Why not, my darling?" "Oh, the ostriches might sit down on your head and hatch it out."

A YOUNG Kilmarnockian, at a dinner-table the other day, where the subject of love was being discussed, when asked for his opinion on this delicate question, gave a definition which, when put into English, greatly amused his London friends. He said that "love was an itchy feeling at the heart, and you couldna get in to skart it."

A WEALTHY man displaying one day his jewels to a philosopher, the latter said: "Thank you, sir, for being willing to share such magnificent jewels with me." "Share them with you, sir!" exclaimed the man; "what do you mean?" "Why, you allow me to look at them, and what more can you do with them yourself?" replied the philosopher.

A FRIEND told a good story the other day. When in the country last summer she picked a sunflower in the garden, and brought it into the house. Meeting the landlady on the doorstep, she stopped to have a word with her, remarking, as she pointed to the sunflower, "These are called esthetic now, you know." "Do tell!" replied the landlady. "I never heard them called anything but sunflowers."

"WE de undersigned, bein' a coroner's jury to set on de body of de nigger Sambo, now dead and gone afore, hab been sittin' on de said nigger afore said, and find dat de same did on de 14 day of Jinerwary come to death by fallin' from de bridge ober de riber and broken his neck whar we find he was subsequently drowned and afterwards washed to de riber side whar we supposed he was froze to death."—*Southern Light and Shade*.

THE Colonel, who lives in the South, was finding fault with Bill, one of his hands, for neglect of his work, and saying he wouldn't have any more preachers about the place—they had too many protracted meetings to attend. "Bill aint no preacher," says Sam. "He's only a 'zorter." "Well, what's the difference between a preacher and an exhorter?" "Why, you know, a preacher—he takes a 'tex', and den he done got to stick to it. But a 'zorter—he kin branch!"

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The Rural Canadian.

EDITED BY W. F. CLARKE.

TORONTO, JULY 15TH, 1882.

AGRICULTURAL HERESY.

That able journal, the *Farmers' Review* of Chicago, has given to the world an editorial paragraph which will probably be extensively quoted, the influence of which we should like to counteract. It reads as follows:—

"Mr. Charles A. Green refers to the impossibility of eradicating the Canada thistle by hoeing or cultivating among growing crops; and strikes the keynote for success by stating that the 'only and sure method is early and often ploughing during the entire summer;' in other words, a thorough system of summer fallowing. However averse the average farmer may be to this old-time mode, it is nevertheless the one which must eventually be practised ere we even check the alarming advance of this greatest of all weed pests, and it is gratifying to know that many are accepting this as an established fact."

That a thorough system of summer fallowing such as is described in the foregoing quotation will eradicate the thistle is quite true, but that this is "the only and sure method" is a great mistake. There is a far more excellent way of eradicating the thistle, and that is by means of clovering. Sow clover, without a grain crop, on thistley land, well prepared by late fall ploughing; run the moving machine over the ground before the thistles bloom; let the aftermath grow, which it will do faster than the thistles; mow again, in due time; repeat the process the second year; and you may say "good-bye" to the thistles. Is not this a far easier plan than "early and often ploughing during the entire summer?" The field thus worked yields no crop, whereas on the clover method there is a crop of hay to pay for the labour, while the land which has been two seasons in clover is left in prime condition for a wheat or any other grain crop. Summer fallowing is a relic of old fogy farming. It is a fight with nature, which aims to carpet the surface with some kind of a green growth. Let that green growth be clover, and the double work of cleaning and enriching the land will be most satisfactorily and thoroughly done.

AIM HIGHER.

Too many people are content with commonplace mediocrity, instead of trying to excel. This is as true of farmers as of any other class, perhaps more so. It is a common copy-book motto in our schools that "Emulation is a noble passion." We would amend it by saying, "Excellence is a noble aim." To do our best every time, to get the best, to disseminate the best, to get rid of inferiority, to advance on mediocrity,—these should be constant endeavours with us all, and especially with farmers. First-class products are always marketable, even when common articles are a drug. The following extract from the *Iowa Register* is apropos of this important subject:—

"It is no difference whether the farmer is breeding fine stock, keeping dairy cows, or devot-

ing his farm to some varieties of grains, he should aim to improve. Starting with the highest type of stock or seed, it should be his constant effort to improve upon whatever he produces every year. He should establish a pretty high ideal, and select every year more perfect specimens of stock and grain. There is no branch of agriculture perfect yet, and the highest specimens of it always pay the best. Even with grain and vegetables there is a wide field for improvement, and he who is able to put on the market a better article than any of his neighbours, can always command a much higher price. It is easy to get a good name, and men will travel far to obtain their seed of him at greatly enhanced prices. It pays largely to have superior products. This can be obtained at little comparative cost, even in the breeding of fine stock. The best class of male animals, no matter how high the price, cost but little in comparison to the value of his produce. Aim higher in all departments of the farm. No matter how insignificant the item raised, let it be of a superior quality of its kind. Nowhere is there more room for improvement than in all departments of the farm."

PLOUGHING BY STEAM.

We have often wondered that, in this progressive country and age, all our ploughing is done by horse-labour, whereas in Great Britain steam is extensively utilized as a power to "speed the plough." Even in the United States, ploughing by steam is almost unknown. In two instances, however, something has been done in this line, during the present season, as will be seen by the following extracts from American papers:—

The *Drainage and Farm Journal* says that "Mr. Samuel Bergen, of Franklin, Ind., has a traction engine with which he draws his clay from the bank (a distance of two or three hundred yards) to the pit, and with the same engine runs his tile mill. He concluded this spring that he would try the practicability of ploughing with it, and attached to it two ordinary turning ploughs, and succeeded admirably in breaking four acres per day, running the ploughs a depth of seven or eight inches. The fuel cost one dollar per day. In the use of the common plough it required one man to each plough, and one to attend the engine. He says if gang-ploughs were used one man would be sufficient to attend the ploughs; the cost of fuel is much less than would be the cost of feed for horses to do a like amount. All-in-all, he is very much pleased with the result of his experiment. That we shall yet see the iron horse harnessed to do much of the ploughing, we verily believe."

The *Minneapolis Tribune* says: "Quite a large number of spectators assembled on the open space near Lake street, between Fourth and Fifth avenues south, yesterday afternoon, to witness the operation of the steam plough brought here from England. At a distance of about 850 yards apart, stood two large engines, which act either as locomotive or stationary engines. Connected with each engine is a large spool, about which is wound a steel rope, an inch in diameter and a third of a mile in length. To this rope is attached the large plough, which, by each engine in turn, is pulled to and fro across the space between the engines, cutting as it goes six neat furrows. By a simple gearing on the plough, the depth of the furrow may be made greater or less at will. The plough is a 'double ender,' and at the end of the trip no turn is necessary, the beam being simply thrown over, bringing the other end, with its six sharp edges, in contact with the soil. There is also a cultivator, which is worked in a similar manner. The trial of the plough yesterday afternoon was a complete success. The farmers present said they never saw such ploughing, or

expected to. Those who had the eyes of machinists thought they had never seen such nice adjustment of cog and wheel.

"After playing across the field for an hour or more, to the satisfaction and delight of those present, the two engines steamed down to the railroad yard, preparatory to being shipped. They go to the broad fields of Dakota, where contracts are to be made for ploughing immense tracts of land at the rate of three dollars per acre."

CLEAN UP!

The following brief article, from the *Massachusetts Plowman*, is worthy of being printed in large type and placarded in every door-yard and barn-yard throughout the civilized world. We gladly do our best to give it publicity, by quoting it in the most conspicuous part of the RURAL CANADIAN:

"Disease comes mainly from below. This is the season for it. The heat of the summer sun causes fermentation, noxious gases are engendered, the air is contaminated, we inhale it, our blood is poisoned, and then comes on fever, diphtheria, death. We call it a visitation of Providence. It is. But it is made through a violation of hygienic law. The air we breathe, the water we drink, or the food we eat is poisoned, and hence the damage. It is a very great mistake to suppose the Pontine marshes are alone malarious. Wherever the summer sun shines on decaying substances; wherever animal or vegetable matter is decomposing, there is malaria. Our State, our homes, our rooms are full of it, and the wonder is not that we suffer so much, but that we live at all under its baleful influence.

"Over and over again the cause of typhoid fever, cholera and diphtheria has been shown to be foul air, or water, rendered so by the neglect of cleanliness. Sometimes whole families, or schools, or colleges are suddenly visited by one of the above-named diseases; prayers are offered, the healthfulness of the place is insisted on, the cause of the scourge is 'an inscrutable Providence.' This, too, among those called 'intelligent people.' What is the cause? Contaminated water; contaminated air! Some sewage is exposed to the sun; some well or spring or fountain is infected by the proximity of a cesspool; some cellar, some closet, some bin or barrel is uncleansed. Some sink drain, or some duck pond, or some court or stable generates malaria. That is the secret. Why, even a tub of decaying apples, or of rancid lard, or oleomargarine, is enough, sometimes, to poison a whole family. Hence let me kindly say: If you desire exemption from these summer diseases, clean up, and keep cleaned up!

"Cover up your sink drains; fill up your stagnant pools; clear out the old rubbish from your cellars; ventilate your closets; cleanse your stables; remove decaying vegetables from your pantry, and see to it that your wells are free from impure water, leaking in from other sources; encourage your neighbours to do the same, for your disease, you know, comes now and then from over the fence. Let cleanliness reign around and through and through your home."

The following lots were offered at auction in front of the City Hall, Guelph, at noon on the 8th inst., there being a large attendance of buyers present: The McLagan farm, Luther, better known as the Wardrope farm, was sold by Mr. Jas. Taylor, auctioneer, to Mr. Nelson, of Dundalk, for the sum of \$7,700. This property comprises 200 hundred acres, and the figure realized is a good one. Mr. W. S. G. Knowles, auctioneer, sold the Nesbitt farm, Guelph township, comprising 250 acres, to John Leggatt, Halton, for \$9,000.

SKETCHES OF CANADIAN WILD BIRDS.

By W. L. KELLS, LISTOWEL, ONT.

THE BLUE BIRD.

This interesting and beautiful bird, our harbinger of spring, is one of the most welcome and attractive of all our feathered visitors, associated as its appearance is with the return of the season when the trees put forth their leaves and blossoms anew, and the earth is clothed with fresh verdure. It is resident not only in all parts of Canada from early spring until late in the autumn, but is also found in most parts of the temperate woody regions of North America. In the Southern States it is a permanent resident, where its constant warblings and innocent vivacity enliven the dull days of their winter time, and during the summer its gladsome lays may be heard at the same time by the free and hardy pioneer in the backwoods of Canada, and the poor freedman on the cotton plains of the south. As early as the first days of March, though woods and fields may still be covered deep with snow, and the water-courses still be icebound, yet if the sun shines bright and the temperature has risen a few degrees above the freezing point, the pleasing notes of the blue bird may be heard as it flies from wood to wood, as if eager to announce that winter's reign is about to close, and give place to the reviving spring, and that he is glad once more to have his plumage fanned by the temperate breezes of his native shores. The habits of the blue bird are in many respects peculiar, for though following in the track of pioneer, and delighting to make its summer stay, and rear its young in the newly-out stumps of the small clearing of the backwoodsman, yet it does not penetrate into the woods either in quest of food or for nesting purposes; neither does it remain in the old settlements unless precaution is used to provide boxes for its nesting purposes; neither does it alight and feed upon the ground like the different species of thrushes and sparrows, but in general captures its insect prey by a series of darting movements, or gleans from the leaves and bark of trees, and the seeds and grain that are procured from tall stalks, or some elevations of the ground. Sometimes in pursuit of a wounded insect, which it is pretty expert in capturing, it darts upon the earth, but the moment it has secured its victim it rises again to some perch. As the food of the blue bird is chiefly insects and creeping creatures, which it gathers from the bark or foliage of trees, or by hovering over the fields, it will be noted that it is one of the best allies of the agriculturist in his contest with destructive insects, and it should therefore be protected and encouraged to take up its summer residence near the abodes of man. In order to do this, little houses, or something containing cavities in which it can form its nest, should be placed in every garden and orchard, on some elevated post, and care taken that cats and birds of prey are not allowed to disturb them. When thus protected, they will return to and occupy the same nesting-place year after year, and their services can only be estimated by those who have their cabbage and other vegetables and fruits destroyed year after year by the ravages of the smaller kinds of butterflies and moths. While the country is still new, the blue bird finds plenty of nesting-places in the hollows of stumps and the deserted nests of woodpeckers; but as these places are destroyed in clearing the fields, if suitable places are not provided in their stead it forsakes its old haunts, follows the track of the pioneer, and is seldom any more seen in the old settlements. One of the first things which the blue bird proceeds to do, when the spring has

fairly opened, is to examine its nesting-place, and if it has not been disturbed, the female soon repairs it, and commences the duty of incubation, while the varied and pleasant warble of her beautiful consort is constantly heard in the vicinity. She begins to nest early in April, and will raise two or three broods in the season. The first clutch generally numbers five, the eggs are of a light blue colour; and the nest is formed of strips of bark, dry grass and hair. The plumage of the male on the upper parts is of a beautiful azure blue colour, the breast madder red, and the under parts whitish. The livery of the female is similarly marked, but her plumage is of a dull hue. In length it is six inches.

CURRENT NEWS ITEMS.

MR. ED. GLEN, of the 2nd concession of Stanley, has a this year's lamb which will weigh 125 lbs.

MR. WM. STINSON, of Osborne, has sold his farm, lot 14, concession 18, to Mr. G. F. Stinson, Brockville, for \$7,000.

DR. HAMILL, of New Baltimore, Michigan, an old Hullett teacher, recently bought his father's farm, near Kinburn, for \$6,000.

FOUR homing pigeons, which were released at Oakville, reached Strathroy, 100 miles distant, in three hours and eighteen minutes.

MR. URIAH McFADDEN, of the 12th concession of Grey, has flax growing on his farm which measures over thirty-two inches in length.

MR. G. BLATCHFORD, of North Exeter, has purchased from Mr. P. McPhillips 100 acres of land, being lot 2, concession 1, Osborne, for \$6,000 cash.

MR. SAMUEL BROOK, of Osborne, near Winchelsea, has three ewe lambs all from one ewe, which now weigh 100 pounds each, and the wool on which will average six inches in length.

THE *Huron Expositor* has been shown some fall wheat, grown near Seaforth, stalks of which measured seven feet, and which, if properly matured, will yield 50 bushels per acre.

MR. ROBERT HERON has sold his farm, the south-east quarter of lot 16, in the 4th concession of Dawn, containing fifty acres, to Mr. James Hunter, who lives adjoining, for the sum of \$1,100 cash.

SOME packages of Dominion \$1 and \$2 bills were stolen from the Dominion Treasury recently without being signed. They are now in circulation, of the following numbers: \$1 bills from No. 505,001 to 505,600; \$2 from No. 145,001 to 146,000; a second package of \$2 from No. 155,001 to 156,000.

ON Tuesday, the 4th inst., Thomas Hunt, of Elmira, gave a mare troubled with heaves half a pint of coal oil, in the hope of curing her of her malady, but the medicine had the opposite effect from what he desired, the animal dying in eight minutes after the draught. The animal was worth \$60, and the coal oil five cents.

MR. JOHN McDOWELL, of Roxboro', McKillop, recently sold a four year old mare to Mr. John Shipley, of Hullett, near Clinton, for the sum of \$240. This fine animal was sired by "Old Netherby." Mr. McDowell has since purchased a three year old gelding from Mr. Joseph Evans, of McKillop, to replace the one he sold, paying therefor the sum of \$200 cash. These sales show that McKillop can hold its own with the best of them in the matter of horse flesh.

THE *Stratford Beacon* says:—"It is rather late in the season now to speak of remedies for the curculio, which has of late years made successful plum culture almost an impossibility in this country, but in conversation with Mr. A. McD. Allen, of Goderich, a most successful fruit grower,

the other day, he informed us that he had completely conquered the "Little Turk," and his remedy is worth recording. In the spring, as soon as the blossoms form, he sprays them with Paris green, in the proportion of a teaspoonful to a bucket of water, and about a pint to each tree. This destroys the curculio at once, and the trees bear abundantly. Every one who has a plum tree should keep this for future reference."

ON Tuesday, the 4th inst., Mr. Frank Thompson, of Mansfield, Ohio, shipped a carload of splendid horses by Great Western Railway, the following being the persons of whom they were purchased and the prices paid:—J. Shipley, Clinton, mare, \$240; T. McMichael, Hullett, yearling stallion weighing 1,200 lbs., and got by "What's Wanted," \$250; Jas. Tremear, Hullett, two year old, \$150; J. Moffat, Goderich township, three year old, \$190; G. T. McKay, three year old, \$200; W. Laithwaite, Goderich township, \$180; J. Allinson, Clinton, \$105; J. Gentles, Kincardine, three, \$220, \$190, and \$200; Anthony Taylor, Hullett, an unusually fine three year old, \$280; T. Stanbury, Clinton, two year old, \$200.

THE *Marquette Review* says:—"A party of twenty Scotchmen passed through the Portage last week on their way home to Scotland. They had been up west looking for land, but they found it so completely locked up and the land regulations so unsatisfactory that they became disgusted and determined to return to their native land. The Rev. Mr. Bell, of this place, met this party of immigrants, and when he learned that they were returning home he remonstrated with them, and asked them why they did not squat until such times as they could make definite arrangements for settlement. They became highly indignant and felt insulted at this question, and said they had not come out to the country to be squatters, but came with the anticipation of being able to procure farms without any trouble. The party was possessed of considerable wealth, and was prepared to engage in farming operations extensively. There are many more immigrants in the west who will also retrace their steps if a more settled land policy is not made at once."

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HORSES AND CATTLE.

PINKEYE IN HORSES.

Dr. C. E. Page writes to the editor of the *Boston Medical and Surgical Journal* as follows:

The custom of working or exercising horses directly after eating; of feeding after hard work, and before they are thoroughly rested; baiting at noon, when both these violations of a natural law are committed; these are the predisposing causes of pinkeye, and of most diseases that affect our horses. Keep the horse quiet, dry, warm, and in a pure atmosphere, the nearer out-door air the better, and stop his feed entirely at the first symptom of disease, and he will speedily recover. As prevention is better than cure, horsemen will do well to heed the hint here given, and keep their creatures from contracting this or any other ailment. It has been demonstrated in tens of thousands of cases in family life, that two meals are not only ample for the hardest and most exhausting labours, physical or mental, but altogether best. The same thing has been fully proved in hundreds of instances with horses, and has never in a single instance failed, after a fair trial, to work the best results.

An hour's rest at noon is vastly more restoring to a tired animal, whether horse or man, than a meal of any sort, although the latter may prove more stimulating. The morning meal given, if possible, early enough for partial stomach digestion before the muscular and nervous systems are called into active play; the night meal offered long enough after work to insure a rested condition of the body; a diet liberal enough, but never excessive; this is the law and gospel of hygienic diet for either man or beast. If it be objected that these conditions cannot always be fully met in this active work-a-day world, I reply, let us meet them as nearly as possible. We can, of course, do no more than this; but we can come nearer the mark on the two-meal system than on three. I have never tried to fatten my horses, for I long ago learned that fat is disease; but I have always found that if a horse does solid work enough he will be fairly plump if he has two sufficient meals. Muscle is the product of work and food; fat may be laid on by food alone. But for perfect health and immunity from disease, restriction of exercise must be met by restriction in diet. Horses require more food in cold than in warm weather, if performing the same labour. In case of a warm spell in winter I reduce their feed, more or less, according to circumstances, as surely as I do the amount of fuel consumed. I also adopt the same principle in my own diet. The result is, that neither my animals nor myself are ever for one moment sick.

GRADE UP.

Among those engaged in beef-growing are many who almost religiously cling to the out-of-date methods, and do not stop to consider that in this age of advancement nothing is so good but that it can be made better. They do not use brain work enough, but argue that "what was good enough for my forefathers is good enough for me." However prejudiced a man may be against improved stock, or "fine haired critters," as some are inclined to term highly bred and fancy strains of stock, he will soon awaken to the importance of keeping abreast of the times, if he spends a few days at the market, where he can see for himself how much the lower kinds are neglected as compared with the well-bred animals. At market, stock of desirable quality is sought after by purchasers, no matter how depressed the general market may be; while, as a rule, the only time

when ill bred stock commands remunerative prices is when values are unduly feverish and excited, owing to a scarcity of good material. Even the most conservative cannot help seeing that while occasionally handsome profits are made on poor stock, it is the exception and not the rule, and also that a two-year-old steer, which brings close to the "top of the market," eats no more, and even less, than a poorly bred one of much greater weight and more years, which sells from fifty to seventy-five cents per hundred below the price made by the well-bred steer. *Drovers' Journal*.

UTILIZING CARCASSES.

A cheap lot of manure may be made of an old carcass of a horse or cow, etc., which are often drawn away to the woods, to pollute the atmosphere. Do not do this, but put down four or five loads of muck or sod, roll the carcass over it, and sprinkle it over with quicklime, covering over immediately with sod or mould sufficient to make, with that already beneath, twenty good-sized waggon loads, and you will have \$25 worth of the best of fertilizers in less than a year, and no fears need be felt in applying to any crop. One beauty of this plan is, the animals need not be moved far away, there being not the least stench. All animals which you are unfortunate enough to lose can be utilized in this way, and be made to go a great way towards replacing them. Smaller animals, such as sheep, calves, dogs and cats, can be treated in the same manner, with about the average amount of sod or muck proportionate to their size. When possible, place three or four in one pile, as the labour of covering would be proportionately less, but it is not much work to make a heap of any animal, however large or small. *Turf, Field and Farm*.

HOW TO TAKE CARE OF HARNESSSES.

A harness that has been on a horse's back several hours in hot or rainy weather becomes wet; if not properly cleaned, the damage to the leather is irreparable. If, after being taken from the horse in this condition, it is hung up in a careless manner, traces and reins twisted into knots, and the saddle and the bridle hung askew, the leather when dried retains the same shape given it when wet, and when forced into its original form damage is done the stitching and the leather. The first point to be observed is to keep the leather soft and pliable. This can be done only by keeping it well charged with oil and grease; water is a destroyer, but mud and the saline moisture from the animal are even more destructive. Mud in drying absorbs the grease and opens the pores of the leather, making it a prey to water, while the salty character of the perspiration from the animal injures the leather, stitching, and mountings. It therefore follows that to preserve the harness, the straps should be washed and oiled whenever they have been moistened by sweat or soiled by mud. If the harness is thoroughly cleaned twice a year, and when unduly exposed treated as we have recommended, the leather will retain its softness and strength for many years.

FAIRS WITHOUT HORSE RACING.

The New York State Fair has long been noted as one of the best in the whole country, and as such is a standing proof that agricultural fairs can be conducted successfully without horse racing and its usual accompaniments. Another feature which adds to its popularity among all agriculturists is the fact that the money premiums are about equally divided between horses, cattle and other stock. The horse is not put in the rear, but he is held as of no more

importance than the ox and sheep. The Chicago fat stock show is another sample of success without the horse race; likewise the poultry and dog shows, and horticultural exhibitions. In England, where agricultural exhibitions are much more common, and, on the average, far more successful than in America, horse racing is almost if not quite unknown in the same connection. And the same is true of France. Why will our fair managers not take these facts into consideration when lamenting the decay and failure of their mongrel slow horse trot, merchant advertising, big squash shows?—*Farmers' Review*.

COW MANURE.

The solid excrements of the cow contain more moisture than the solid excrements of horses, sheep, and pigs, and less nitrogen than horse dung. It enters slowly into fermentation, and therefore is of a colder nature than horse dung. The slowness of fermentation of cow dung must be ascribed first, to the large amount of water which it contains, second, to the small amount of nitrogen contained in the organic portions of this dung, and third, to the physical condition of these matters, for in drying, cow dung does not crumble down like horse dung, but adheres together, forming a cheesy mass, into which the air does not penetrate readily, and which cannot be so well distributed over the land as horse dung. The action of cow dung on vegetation is slower, but more lasting than that of horse manure.

REMEDY FOR SCRATCHES.

Make a lye by dissolving an ounce of common washing soda in six quarts of hot water, and with this when cool wash and soak off all the scabs, using a brush or anything else to remove them rather than the fingers. Then wipe dry, leaving no particle of the lye. Dissolve one drachm of crude carbolic acid, using as little water as possible, and mix it with five ounces of glycerine. Apply two or three times a day. Every two or three days, not oftener, wash off the scabs with warm carbolic soapsuds, and dry carefully before applying the glycerine again.

LAUGH at scientific or book farming just as much as you please, yet the man who takes advantage of air, soil and fertilizers, studies how to manufacture grain and roots, meat and fruits, out of these raw materials, is the one to succeed.

The most profitable way to raise beef cattle is to keep them constantly in a thrifty and improving condition. It is not necessary to keep very young stock rolling in fat, but there should always be an abundance of nutritious food to help nature in its development. To allow stock to run down in flesh and become ill-conditioned, simply because it is not designed for market for some time, is the height of folly.

An English writer states that the men who won at Waterloo were raised on milk and oatmeal.

The Ogilvie flouring-mill, just completed in Winnipeg, is probably the finest in the Dominion. It is built of white brick, with five storeys and a mansard. The dimensions are 50x100 feet; height, 88 feet, cost, \$180,000, producing capacity, 600 to 800 barrels per day of 24 hours; running time, day and night, and number of hands employed, fifty or sixty. Plenty of wheat is stored to exercise the mill from now till harvest; 80,000 bushels are in the storehouses, besides large surpluses at Emerson, Portage la Prairie, and Niverville. Great as this capacity may seem, it is nevertheless very inadequate to the wheat-growing powers of Manitoba and the North-West.

SHEEP AND SWINE.**GOING INTO SHEEP.**

A new beginner, who has had no experience with sheep, asks us whether it would be safe for him to buy 200 or more sheep after shearing, with a view of feeding them for market. He has pasture for them, and thinks of feeding them in winter, for spring sale. If our correspondent wishes to take a lesson in dear-bought experience, which will make a most lasting impression, then his project would probably be entirely successful. We generally advise taking lessons at a lower figure. Sheep feeding requires a good deal of judgment, founded on experience, to manage profitably. We have known one instance where "New Beginner's" project was tried successfully, and a fair margin left on the transaction, but the circumstances were exceptionally favourable—he had an experienced Mentor at his elbow in the purchase, and at frequent periods in the feeding, as well as in the sale at the time of marketing. These three things are important landmarks in the sheep business—to know how to buy, how to feed and, lastly, how to sell. A slight mistake in each part is sure to result in a loss. It is generally thought to be more risky for a new beginner to attempt the feeding of 200 sheep than a proportionate number of cattle, but he is not likely to be successful in either. If our correspondent has a liking for sheep, or thinks he would have, it would be safer for him to try a small number—say ten to twenty—and then feel his way up to greater numbers. Let him visit the nearest sheep market and leisurely inspect the different grades, and see how each stands when brought to sale; keep his eyes open to all the points, and remember them in his selections. This will be cheaper than his large experiment, for a new beginner. Again, if he should spend a little time in visiting some successful feeders, and get an insight into their way of doing it, he will be taking practical lessons at what they are well worth to him. It may be considered somewhat strange that farmers do not visit each other more in search of the practical experience of those who have succeeded in any specialty. This is in the natural line of those who do not believe in book-farming, but even this sensible way of gaining information is not much pursued.

We would suggest that "New Beginner" might find a flock which he might pasture through the summer, at so much per head, and thus gain some information in handling them. A flock of 200 sheep, well bought, the latter part of June, to be pastured through the remainder of the season, with a view of feeding for sale at the most favourable period, should be judiciously fed from the start. If the pasture is good the sheep will do well on that alone, but a little extra feed will be liberally repaid in fattening. As fattening is the object sought, let this be done in the most economical way. A little grain on pasture will pay much better than the same amount of grain in winter. As we have often advised, economy requires that animals intended for meat should be pushed in the warm season. A quarter of a pound of corn and oats, or corn and wheat bran, or corn and linseed meal, mixed, for each sheep, will produce a greater result than twice that amount of feed in winter with good hay. The time to give a start to fattening sheep is in summer. If these sheep become fat in the fall, so much the better are they for feeding in winter. Such sheep will stand the cold, and gain on a much smaller ration than if they were thin in the fall. The best western feeders of cattle wisely give corn on pasture. Sheep feeding should be done in the same way, except that it is better to give some more

nitrogenous feed with corn. The rule should be to push the sheep in warm weather, and then feeding in winter will be comparatively easy.—*National Live Stock Journal.*

THE RAZOR-BACK HOG.

To the traveller through Texas and elsewhere, one of the strangest and most peculiar features of landscape is the razor-back hog. He is of Swiss cottage style of architecture. His physical outline is angular to a degree unknown outside of a text-book on the science of geometry. His ears, or the few rags and tatters of them that the dogs have left, are curled back with a knowing, vagabondish air. His tail has no curl in it—but it hangs aft, limp as a wet dish-rag hung out of a back window to dry. The highest peak of his corrugated back is six inches above the level with the root of his tail. He does not walk with the slow and stately step of the patrician Berkshire, but usually goes in a lively trot. He leaves the impression that he was late starting in the morning and is making up for lost time, or that he is in doubt about the payment of that cheque, and is hurrying to get it cashed before the bank closes.

The country razor-back prowls around in the woods, and lives on acorns, pecan nuts and roots; when he can spare time he climbs under his owner's fence and assists in harvesting the corn crop. In this respect he is neighbourly to a fault, and, when his duty to his owner's crop will allow, he will readily turn in and assist the neighbours, even working at night rather than see his crop spoil for want of attention.

He does not know the luxury of a sty. He never gets fat, and from the day of his birth, sometimes two years roll into eternity before he is big enough to kill.

Crossing the razor-back with the blue-blooded stock makes but little improvement. The only effective way to improve him is to cross him with a railroad train. He then becomes an imported Berkshire, or Poland China hog, and if he does not knock the train off the track, the railway company pays for him at the rate of one dollar a pound, for which they are allowed the mournful privilege of shovelling the remains off the track. The ham of the country razor-back is more juicy than the hind leg of an iron fire-dog, but not quite so fat as a pine knot.—*Western Plowman.*

CLOVER FOR HEALTHY GROWTH OF HOGS.

It came in my way last summer to frequently pass a field of clover which had been fenced off for a hog pasture, and noticing the amount of feed and the thrift and the general appearance of the hogs, I called upon the owner of the farm for an interview.

"Oh, yes, I can give my opinion and the results. That lot we call 20 acres, including the small grove and spring in one corner. We sowed it with oats last season, and stocked down with clover, part Medium and the balance Mammoth. The first of June, this summer, we turned in 90 hogs, but this made no impression on the clover, so we turned in ten colts, 15 head of young cattle, and 50 sheep, and altogether they managed to keep it within bounds. About the first of August we took out the cattle and commenced feeding corn."

"Could you discover any difference between the Medium and the Mammoth clover as to its food value?"

"Yes, the Mammoth was much the best, it kept green longer, and would have yielded a large quantity of hay. Now as to the results: A few

days ago I took a car load of these hogs to Chicago, and the average weight of the 42 to fill the car, was a fraction less than 400 pounds, or in other words, the 42 hogs weighed 17,940 lbs., netting the snug little sum of \$1,078; and I received five cents per hundred more than any hogs sold in the market that day, because they were in a nice, even splendid condition for the Philadelphia market. The balance of the lot will be ready to ship in a few days."

Notwithstanding this farmer cannot give us the exact weight of the hogs when turned into the clover pasture, nor the gain in pounds on the first day of August, yet I am sure that the facts as given will warrant the oft-made assertion that a clover pasture is the most profitable feed for young hogs. One of our large breeders of Poland-China hogs, who has been breeding fine stock for years, says that he has never had a single case of hog cholera on his farm, and he attributes it to the fact that he always lets his breeding stock run to clover pasture. The fact is, a large majority of our farmers and breeders are breeding for fat and show, and the warp or muscle is not sufficient to hold the filling, and hogs are getting organic disease by this continued cramming process.—*Swine Breeders' Journal.*

TRICHINA IN SWINE.

We have heretofore stated, without reservation, our belief that when the full array of facts were known in relation to the cause of trichina in swine, it would be found that the difficulty arises from the animal eating garbage and vermin. Experiments which we made some years ago fully satisfied us of this. We made the statement then, and now reiterate it, that trichina will not be found in corn-fed hogs. This late outbreak at Minnesota, Minn., by which a large number of persons were stricken, some of them fatally, was traced to the eating of raw ham, and it was found that the swine, forty in number, were fed in a pen adjoining a slaughter-house upon the offal of the slaughter-house. The buildings were also overrun with rats, one of the most prolific sources of the disease. Subsequently the establishment and swine were removed to another place, where there were less rats, but still fed on the offal. There should be laws passed by the legislature of every State, forbidding the feeding of swine, for human use, on the offal of slaughter-houses, and also against the selling of the meat of such swine. It is true, this pork, if thoroughly cooked, is not dangerous, yet so long as people will eat raw or half-cooked ham, the warranty should have legislative endorsement.—*Chicago Prairie Farmer.*

An incorporated company for sheep-breeding has been formed in southern Missouri, with the purpose of bringing under cultivation 30,000 acres of land on the side of the Ozark Mountains, fencing it and starting with 4,000 sheep, providing them with shelter and winter feed.

At the sheep shearing at Middlebury, Vt., the first week in April, fourteen rams, aged three years or over, cut 377 pounds twelve ounces of wool, or a small fraction less than 27 pounds each, sixteen two-year-old rams cut 381 pounds three ounces, average 23.15; fifteen yearling rams cut 262 pounds three ounces, average 17.7; fourteen two-year-old ewes cut 242 pounds two ounces, average 17.4; fifteen yearling ewes cut 199 pounds twelve ounces, average 13.5 of wool each. Among the sheep was a ewe three years old, with a lamb by her side, which was sheared the next day after the exhibition, before witnesses, yielding 21 pounds nine ounces; carcass weighing 65 pounds, a per cent. of 38.1 of wool to live weight—364 days' growth of wool.

HOME CIRCLE.

HOW HE WON HIS CROSS.

"Come, tell us, sergeant, how did you win your cross?"

This question was put up by one of a number of young soldiers who stood around Sergeant Manchot in the grounds of the Invalides. The person addressed was an old, one-armed man, who seemed to think that a certain air of fierce, unsmiling gravity most became a soldier of the empire; but who, it was well known, hid one of the kindest hearts under the outer form of stern severity. On being thus questioned, he took a well-used pipe from his mouth, slowly puffed out a column of smoke, drew himself as erect as age would permit him, and replied,

"Won my cross? Yes, *mon enfant*, you say right; in those days we had to win a cross—it was not given. It was worth winning, too. We didn't, with the emperor, gain glory by fighting against one another. There were no barricades then—no battles in the streets of Paris. That great man, so wonderful in his genius, so indomitable in his courage, who always conquered, would not allow it; and let me tell you, no one dared to do what he said he should not—he soon made short work.

"Ah! those were the days when we knew what true freedom was. There were none of your Republicans, your Orleanists, your old or your new parties. We were all Frenchmen then—Frenchmen, do you hear me, my children? It was against the enemies of *la belle France* we fought—against those who hated the great nation because it was so glorious.

"Yes, it was against them we Frenchmen always fought, and when traitors did not betray us, we always conquered. They could never defeat him, the emperor, by fair means. Ah, with what glory he covered France!"

The old man's eyes glistened with enthusiasm, and his face glowed.

"But all this is changed now," continued the old soldier in a mournful tone. "France, shame upon her! does not care what her enemies do. The Grand Army is no more. But you wish to know how I gained my cross. Well, I will tell you, for it will show you what a man the emperor was.

"It was the 6th of November. For a long time our march had been full of glory. The enemy had fled before us, for whenever he tried to stand we defeated him. We had reached Moscow—that fatal city. We were to have wintered there. But what did these cowardly villains of Russia do? Why, as you know, they burnt down their town.

"We were compelled to retreat; and a terrible march we had had, what with frost, snow and hunger. It was the 6th of November, I say. We had just fought the battle of Vianna, and won it of course. The emperor, in his order of the day, said we had annihilated the enemy. Still we had to retreat, not before the Russians—no, we had crushed them, I tell you—but before the weather; it was terrible. Oh, what frost! It froze the very marrow in our bones. Oh, what snow! It cut our skins; it blinded us; we sank in it to our knees as we marched. We had been *en route* since six o'clock, and it was now past noon. An awful march it was. The ground over which we passed was strewn with our dead and dying. Not that we saw much of the foe—no, those we had not killed knew too well what they would get if they came near us. It was that terrible cold and the empty stomachs that did for us. When these made any fall behind, the rascally Cossacks, hanging all around us like a swarm of bees, either killed and plundered them, or, if they were at all able to walk, stripped them, and then tying them to their horses, made them run at their sides till they dropped from cold, hunger, and fatigue.

"Many of the officers and men in my company had thus perished. All were dispirited—no song, no shout, no joke, and what was worse than all, no grumbling. The sullenness and recklessness of utter despair had taken hold of us.

"Our captain was a terrible little man—not a braver one than he in the whole army. And then, you see, we were all brave. He did not stand more than so high" (pointing to his shoulder); "but he would have his own way—he made us do it; if he said no, it was no, if yes, then yes; he would not change. We called him Captain Tétu, and my faith! it was a good name, for he was obstinate.

"He had been a stout, red-faced man; but now, how changed!—thin, pale, and haggard. Nothing could, however, drive away his look of firmness. He was hardly able to keep up with us; but he was determined not to give in as long as he had life, so on and still on he crawled. He had wrapped his shoeless feet in his handkerchiefs, which were now deeply stained with the blood that oozed from his wounds. Two or three times I had offered him my arm for his support, but he had refused it angrily.

"What!" said he, "do you think I can't walk as well as another? Am I a child? Every one needs all his strength for himself."

"At last he told me if I dared to bother him with my offers to assist him, he would have me punished severely. So what could I do?—he always meant what he said. But, obstinate as he was, he could not hold out any longer. With a faint cry of 'Ah, it is all over with me! *Vive l'Empereur!*' he fell on the snow.

"All over, my captain? oh, no, not while Corporal Manchot is here!"

"Why, who is that? Is that you, Manchot? You are not with your regiment, how is that? Leave me; my battles are all fought. But stay; here, take my cross and my purse, there is not much in it. I wish for her sake there was more, but the emperor will not forget her when you reach France. Ah, *la belle France!* I shall not see you again! Go to Voroppe, near Grenoble; there you will find an old woman eighty-two years of age; it is Madame Marlen, my mother. Kiss her for me on both cheeks, give her the purse and cross, and tell her how I died. *Vive la France! Vive l'Empereur!* Now go—join your company. Adieu—go."

"Not unless I take you with me. Come."

"Come! How can I come? Fool that you are, don't

you see I cannot walk, or do you think I should be lying here?"

"Nevertheless, come." With that I lifted him on my shoulder.

"What are you doing? Put me down, I tell you; put me down."

"Put you down? What! to lie and die on the snow, or to be murdered by those thieves of Cossacks and then stripped? Oh, no, captain, I shall not do that; you need not ask me."

"Impudent rascal that you are! I do not ask you, I order you; disobey me at your peril."

"Excuse me, captain, you need not trouble yourself to speak. See, you can do nothing—you are too weak to struggle."

"What! am I not to be obeyed? Ah! if I survive this day you shall suffer for it. By the word of Captain Tétu you shall."

"Survive! Why not? Of course you shall. I'll carry you all safe. Survive! *ma foi!* And I, Corporal Manchot, here!"

"Villain! lay me down, I say. What? you won't? Oh, you know you would not dare to treat me so if I was strong; but, alas! I am weak, and you take a base advantage of me."

"Well, captain, let me have my way now; when you are strong again I will obey you, as I have always done."

"Rascal that you are!"

"All this while I was trudging on as well as I could, and that was very badly. It was hard enough to walk when I had only myself to carry, but with the captain on my shoulders it was a little more difficult. My company was now out of sight; it was of no use trying to overtake them—that was impossible. All around me stretched an immense, treeless, snow-covered plain. Nothing was to be seen upon its wild waste but the black patches and the little mounds which showed where the dead and dying were. In the far distance, against the snow-laden horizon, I could see a few moving specks, which I soon discovered were a number of Cossacks, who, at a gallop, were swiftly drawing nearer to me.

"Ah! then it is all over with us, captain," said I; but he made no answer; he was insensible. "Well," said I to myself, "I am not going to die, nor to let him neither, without a good hard struggle for it; that would not become a soldier of the empire. No; if they come near me it will cost some of those vile Cossacks dear; they shall know what a Frenchman can do; I will stop that abominable hurrah of one or two of them, or my name is not Manchot."

"I had not much time to think, for they drew quickly nearer, with that wild, wretched yell of theirs. Call them soldiers! Bah! nasty, dirty, savage-looking fellows; with their bony, ragged, ugly little horses. Why, they were only fit to kill the wounded and the dying—to injure and plunder those who could not help themselves—not to fight against Frenchmen.

"Well, but what was I to do? I laid the captain down, and covered him over with snow as well as I could. Then, seeing a number of corpses lying together in a heap, I went and laid down among them, pretending that I too was dead.

"The better to hide myself, I turned over a body, and was horrified to find it was that of an old comrade of mine, who had fought by my side on the glorious field of Austerlitz, Sergeant Subra. A braver and a better soldier there was not in the whole Grand Army. At any other time I should have been much grieved, but now all my thoughts were taken up with how was I to escape the enemy. So I crept as well as I could under the corpse of the sergeant. The Cossacks were on us. Never did I think myself so near death as then. They galloped right over us, and in doing so the hoof of one of the horses came down upon me, and smashed my left arm. Ah! my children, you may be sure it was not easy for me to keep from calling out—the agony was so very great. To keep in the cry that seemed to force itself from my heart, I almost bit my lips through. Well, having done what mischief they could while on horseback, they passed on—those murdering, thieving villains.

"I then ventured to look up from my hiding-place. All, as I thought at first, were gone. I was glad of this, for what can one man, with a broken arm, do against a hundred with two arms, and on horseback? As I cautiously looked around, still lying where I had hid—for I was too old a soldier to betray myself until I knew that the whole coast was clear—I saw that one of the enemy still remained behind—a big, ugly scoundrel, who, dismounted and leading his horse, was at this time bent on the plunder of an officer. At this sight my anger made me forget my pain. I felt hurt that so pitiful a villain should have it in his power to injure a brave man.

"Ah! I said to myself softly, 'if I, Corporal Manchot, can help it, you shall never boast of what you are now doing. So I seized a musket with my right hand, loaded it, and prepared to take aim. In doing this I made some noise which alarmed the thief; he started, listened, rose from his knees and looked around, but saw nothing. Not satisfied with that, he walked right toward the heap where I lay, at only a few yards' distance. You may think I did not make any noise then. I even breathed as lightly as I could. He saw—he heard nothing, so, with his confidence restored, he went back to finish his work. With that I lifted my musket—but if you ever should try to lift your musket to your shoulder to take aim with your left arm shattered, you will find it a very awkward thing to do.

"My instinct—the instinct of a veteran, see you—told me that, so I did not try, but rested my musket on the body of a dead comrade and took good aim—very good, you may be sure, for my life depended on it—fired—when, bang! his battles were all over, as the captain had said to himself; he leaped up, flung out his arms, and fell dead.

"This raised my spirits—it somehow seemed a good omen to me that I should escape. But how? Ah! I did not yet see that. I returned to where I had buried the captain in the snow—dug him out—tried all I could to lift him again on my shoulder, but could not do it because of my broken arm. While I was endeavouring to raise him, my pulling him about revived him—he opened his eyes and saw me leaning

over him. At first he did not understand how things were, but soon recollecting himself, he said with as strong a voice as he could, though that was very weak,

"What, corporal, you here still? Am I then not to be obeyed? Did I not tell you to leave me and join your company? Why, if these things are allowed, there will soon be no discipline in the army! If I live, you shall be soundly punished—you shall, on the word of Captain Tétu."

"This persistency of his displeased me, so I replied to him more sharply than I should,

"*Ma foi!* captain, if you are going to be so obstinate, Manchot will imitate you, or he is not a corporal in the Grand Army. If you stay here, he stays too, so say no more about it; what I have said I will do."

"He looked offended, but said nothing—poor fellow, he could not, for he soon became insensible again. Night was now fast coming on, so I went and gathered as many cloaks as I could—alas! there was no scarcity of them—and wrapped him in them.

"Then I sought for something to eat.

"It was well I had finished off the Cossack, for I found on him a flask of brandy, which he had evidently taken from one of our officers, and some bread.

"Returning to the captain, I poured a little spirits down his throat, which revived him; I then made him eat and drink, and took some bread and brandy myself. It was now dark, and there was nothing for it but to wait till morning, to see what that would bring forth. I knew the rear-guard of the army was not past, and had some hopes that we might be picked up by them.

"Never shall I forget the fearful horrors of that night. It never ceased to snow. The cold seemed to pierce into one's very vitals, and freeze up the marrow in our bones, and the blood in the heart. Nothing was to be heard but the growling of the wolves and the gnashing of their jaws, as they gorged themselves on the plentiful banquet which lay around. I felt that the frost was gradually mastering me, and that it would soon numb all my limbs. I was certain I could not hold out much longer, so recalling the few simple old prayers which I had learnt from the good cure when I was a boy, I fell on my knees and repeated them. This seemed to give me new strength.

"Depend upon it, children, there is nothing will so revive a man as prayer. What, young wiseacre, you are sneering at that, are you? You think I am very foolish, do you? Well, wait till you have gone through as much as I have, and faced death and danger as often, and perhaps you will think as I do. By the time I had finished my prayers, morning began to dawn. The snow had ceased for a little. Through the dimness of the early dawn I saw a group of French officers at a little distance. To draw their attention I shouted as loudly as I could, and jumped up. They drew near.

"Halloo! how is this? Why are you not with the army?" said a short, determined-looking man, dressed in a light gray overcoat lined with fur.

"Yes, young hope of your country, it was the emperor! and I do not expect France will ever give you such a general to fight under. It was the emperor, but I did not know it. He was the last man I should have expected to see there, so I replied:

"Why am I not with the army? Look here!—pointing to the captain and my arm—'with this more, and this less, how could I be? I wish with all my heart I was there instead of here.'

"Sire! Ah! then I knew it was the emperor, that bravest of the brave, that truest of the true, that wisest of the wise. I did not know what to do or say, so I gave him the salute as well as my benumbed and stiffened limbs would allow. 'Sire,' said one of the suite, 'I saw this man yesterday carrying an officer on his back.'

"Is it so, corporal?"

"Sire, my general, what could I do? The captain could not walk; he fell down. Was I to leave him to die, or to be murdered by those cowards of Cossacks? I knew it was wrong, and I did it in spite of his orders—he was very angry with me; but I could not help it, so I tried to carry him. The Cossacks rode over me, and broke my arm; I could do no more. Pardon me, Sire."

"The emperor smiled; yes, my children, he smiled" (here the veteran's eyes glowed with honest pride at the remembrance)—"he smiled at me, Corporal Manchot, and taking a huge pinch of snuff, said:

"It is well, very well, my brave fellow—that to me, yes, to me who now stand before you—'It is well, very well, my brave fellow'—those were his very words; as I heard them, I forgot my cold, my hunger, and the pain of my arm.

"See here, this is for you"—with that he opened his coat, took from his breast the cross, and pinned it on mine. Oh! what joy! what ecstasy! what pride! Decorated! and with the emperor's own cross!

"He then called to Davoust, and ordered that I and the still insensible captain should be carried forward in his own waggon. So I escaped from the horrors of that retreat from Russia—but not from the punishment the captain had threatened me with. As soon as he found that he and I were safe with our regiment, he placed me under arrest for fourteen days, for what, he said, had been a gross breach of discipline. Ah! he always fulfilled his promise, did Captain Tétu—he is a general now.

"What he had done to me was told the emperor. I have heard he was much amused; he ordered my release, at the same time raising me to the rank of sergeant. That, *mon enfant*, is how I won my cross. The ribbon I wear here, where every one may see it; the cross lies next my heart, where it shall always be in life and in death."—*Caillif's Magazine.*

OF THE 1,150 convicts in the Ohio penitentiary, but seven-teen are women.

A REPRESENTATIVE meeting at Newport has unanimously resolved that a Sunday-closing Bill for the Isle of Wight should be introduced.

A TUNE played on a church organ in New Britain, Ct., was distinctly recognized by telephone in Worcester, Mass., a distance of 90 miles.

THE OCEAN.

As we stand then, to-night, looking forth upon the ocean, what do we behold? At first sight only a barren waste of waters, surrounding the continents and covering three-fifths of the surface of the globe. It is a pathless and desolate expanse, which seems designed to check the intercourse and to defy the authority of men. No cities are built on its heaving and treacherous breast; and the bustle of human life, the roar of human activity, ceases at its edge. The realms of space above our heads are hardly more appalling in their silence and their solitude than the boundless ocean plains, where no living thing appears to break the oppressive stillness with its movement or its cry, and only wave chases wave from end to end of the horizon. No barrier of mountains, lifting their snowy summits to the clouds, would seem to arrest the progress and mock the power of mankind, like this great wall of water which the Almighty hand has reared around the nations.

But man has conquered the sea, and if you observe it again, you will perceive that it is not a barrier to keep nations apart, but a bond to bring them near and to unite them together. The trackless expanse, at which we were just now looking, is furrowed by a million keels. The cunning of the human mind has traced upon it a network of paths, along which the commerce of the world swiftly and safely moves. Its dreary solitudes are bright with sails, and the music of human voices has broken the spell of silence which had settled upon it; science and daring have robbed it of its terrors, and have brought it into subjection to the human will. It has become a great and free highway, over which thought and wealth may pass from land to land. It has made all the nations neighbours, and widely sundered peoples familiar friends. To traverse it is no longer a matter of desperate adventure, it is an incident of a holiday. It has been explored, mapped out, subdued, and the voyage across it, which was once involved in hardly less uncertainty and peril than that in which a soul sets forth upon the unknown ocean of another life, is now an experience of which almost every detail may be anticipated and of which the end may be predicted to an hour. When forty-six years ago the French astronomer sent word to all the observatories of Europe that on such a night, at such a point in the heavens, a new planet might be seen, it was rightly held to be a marvellous example of the power of the human mind. But it is a hardly less signal display of man's mastery over nature, when, after pushing steadily forward for many days, through sunshine and storm, through mist and darkness, on the North Atlantic, the captain of the vessel in which you are sailing says quietly to you: "At nine o'clock this evening, in that direction, you will see the light on Fastnet Rock." The ocean has been tamed and civilized and made a part of the habitable globe.—*Rev. E. B. Cox, D.D.*

"NOTHING TO READ."

Many and many a time we have all heard this said, I presume, and Flora McFlimsy, with her "nothing to wear," has often arisen, perhaps, as a suitable companion piece. Because the last new novel doesn't lie on the table, or the latest magazine, does it follow there is nothing to read? I confess to have had this feeling myself, sometimes, and so been compelled to take down some of the good old books from their shelves—where they had lain so long that if they had not been very good indeed they would most certainly have spoiled—and have been thoroughly astonished at my own ignorance, in allowing such treasures to lie so idly by me, my soul or intellect going hungry meantime. As there are no better friends than the old friends; no better songs than the old songs; no grander hymns than those that have long been consecrated by church usage; and no music sweeter than the notes to which we listened in far away times and in far away places; so the dear books, those which have been tried and tested by other generations and "pronounced good," may be trusted now. They have an old wise flavour better than the new; an odour of old thyme and forget-me-nots that revives other days and other times, and we grow broader and wiser as we spread the years before us that our fathers knew. The books of to-day are written hurriedly for these swift times—the lighter literature, I mean—and consequently have but a present, fleeting value. The old books—our standard literature—are like rocks that the waves of ocean have beaten and battered without injury; standing the cleaner and the whiter for the washing of the centuries. Let the old books be brought forward. We will find in them a beauty seen only in age; a beauty of silvered hair and the genial sunshine of years.

PRICE OF ELEPHANTS.

The Moors who drive a trade in elephants throughout the Indies, have a fixed price for the ordinary type, according to their size. To ascertain their true value, they measure from the nail of the fore foot to the top of the shoulder, and for every cubit high they give at the rate of £100 of our money. An African elephant of the largest size measures about nine cubits, or thirteen and a half feet, in height, and is worth about £900; but for the huge elephants of the Island of Ceylon four times that sum is given. Had Jumbo been measured by the same standard, what would have been his real value in money?—*Notes and Queries.*

COLLECTING OLD POSTAGE STAMPS.

Some years ago the inquiry was started in France, why the convents and congregations collected the old postage stamps by the million. The French postmaster-general, struck by the singularity of the fact that none of the religious congregations ever purchased postage stamps, investigated the subject, and was told that the priests of each diocese received large quantities of stamps from correspondents desirous of making offerings or paying for masses, and that these were used in paying for letters. He was not satisfied with this explanation, and commissioned M. Mace, the chief of the detective service, to make further investigations. The

official reported that the convents collected old stamps that had been used to sell them again to dealers in various parts of the world, to be absorbed by collectors. M. Cochery was not satisfied with this explanation, which proceeded on the assumption that several millions of philatelists were yearly added to many millions already interested in the collection of stamps of various nations. This year the Post-office Department has renewed its inquiries, stimulated by the fact that the work of collecting old stamps is going on more actively than ever, and that several dealers have opened their shops in Paris. M. Cochery has his suspicions that all is not honest in this business, but the Paris authorities decline to co-operate any further, and thus the matter stands. This same thing has been done extensively in other places, but it is for no good purpose in the end. Stamps cannot be collected in quantities at any cost excepting for the purpose of defrauding the government, by cleaning and using them over again.

THE LILAC.

I feel too tired and too old
Long rambles in the woods to take,
To seek the cowslip's early gold,
And search for violets in the brake
Nor can I, as I used to, bend
My little bed of flowers to tend;
Where grew my scented pinks, to-day
The creeping witch-grass has its way.

But when my door I open wide
To breathe the warm sweet air of spring,
The fragrance comes in like a tide,
Great purple plumes before me swing;
For looking in, close by the door,
The lilac blossoms as of yore;
The earliest flower my childhood knew
Is to the gray, worn woman true.

Dear common tree, that needs no care,
Whose root in any soil will live,
How many a dreary spot grows fair
With the spring charm thy clusters give!
The narrow court yard in the town
Knows thy sweet fragrance; and the brown,
Low, hill-side farm house hides its eaves
Beneath the gray-green of thy leaves.

Loosed by the south wind's gentle touch,
In perfumed showers thy blossoms fall,
Thou asketh little, givest much;
Thy lavish bloom is free to all;
And even I, shut in, shut out,
From all the sunny world about,
Find the first flower my childhood knew
Is to the gray, worn woman true.

DISTANCE OF THE SUN.

Some of the revised figures and opinions concerning the sun, as the result of the most recent observations, aided by improved methods and appliances, are of peculiar interest. Thus, the former calculations, which placed the sun at 95,000,000 miles from the earth, and which remained unquestioned for so many years, are now changed, on the highest authority, so as to present a mean distance of 93,100,000 miles. Not less interesting are those investigations which deal with the solar temperature, respecting which the most diverse opinions have existed until lately among men of science, these opinions differing, in fact, all the way from millions to the comparatively low temperature of 3,632° Fahrenheit. The figures now most generally received are those of Professor Rosetti, of Padua, who, after the most profound and prolonged study, places the sun's temperature at about 18,000 degrees Fahrenheit. Another notable fact is the recent discovery of oxygen in the sun's atmosphere—the first discovery, indeed, of the existence of any non-metallic element there.

CHEERFULNESS IN CHILDREN.

A very small matter will arouse a child's mirth. How still the house is when the little ones are fast asleep and their pattering feet are silent! How easily the fun of a child bubbles forth! Take even those poor prematurely aged little ones bred in the gutter, cramped in unhealthy homes, and ill used, it may be by drunken parents, and you will find that the child's nature is not all crushed out of them. They are gleeful children still, albeit they look so haggard and weary. Try to excite their mirthfulness, and ere long a laugh rings out as wild and free as if there were no such thing as sorrow in the world. Let the dear little ones laugh then; too soon, alas! they will have cause to weep. Do not try to check or silence them, but let their gleefulness ring out a glad some peal, reminding us of the days when we too could laugh without a sigh, and sing without tears.

DEAD STARS.

Like the sand of the sea, the stars of heaven have ever been used as effective symbols of number, and the improvements in our methods of observation have added fresh force to our original impressions.

We now know that our earth is but a fraction of one out of at least 75,000,000 worlds. But this is not all. In addition to the luminous heavenly bodies, we cannot doubt that there are countless others, invisible to us from their greater distance, smaller size, or feebler light; indeed, we know that there are many dark bodies which now emit no light, or comparatively little. Thus in the case of Procyon, the existence of an invisible body is proved by the movement of the visible star. Again, I may refer to the curious phenomena presented by Algol, a bright star in the head of Medusa. This star wanes without change for two days; then in three hours and a half dwindles from a star of the second

to one of the fourth magnitude; and then, in another three and a half hours, reassumes its original brilliancy. These changes seem to indicate the presence of an opaque body which intercepts at regular intervals a part of the light emitted by Algol.

Thus the floor of heaven is not only "thick inlaid with patterns of bright gold," but studded also with extinct stars—once probably as brilliant as our own sun, but now dead and cold, as Helmholtz tells us that our sun itself will be some seventeen millions of years hence.

FISHING WITH ELECTRIC LIGHT.

A French yachting paper describes the new apparatus which is used with the permission of the Government of that country for fishing by electricity at night. It consists of a globe of glass within which the electric light is shown. Two conductors encased in gutta-percha are arranged so as to meet one another on the inside, very much on the same principle which is now familiar to all visitors to the Crystal Palace. They communicate with a fishing boat anchored at a convenient distance, and can, of course, be set into activity by the occupants of the boat. As to the globe, it is attached to a weight below and a float above, so that it can be raised or lowered to the desired depth. As soon as the carbons are ignited and the glass is in proper position, all the sea in its vicinity is illuminated brilliantly, and the fish, over whom light is well known to exercise an irresistible influence at night, come eagerly, and sometimes in large schools, within the rays. They may be seen from above disporting themselves in the unaccustomed brightness, and little dreaming of the sinister purpose with which the little fête is organized for them. It is then that other fishing-boats, armed with nets, come up and set to work at the unconscious victims, which they surround as well as they can without interfering with the apparatus connected with the lighted globe. It may be supposed that this device is calculated to operate with much deadly effect whenever it is used, and there seems to be much doubt whether it will ever be allowed as a recognised kind of fishing within territorial waters. Indeed, the license granted by the Government is said to be merely provisional, and for the purpose of testing the new machine.

GEMS.

The rarest of all gems is not the diamond, which follows after the ruby. This in its turn allows precedence to the chrysoberyl—popularly known as the cat's-eye. The true stone comes from Ceylon, though Pliny knew of something similar, under the name of zimlampis, found in the bed of the Euphrates. Can we wonder, when we look at one of these singular productions of nature, with its silvery streaks in the centre, and observe, as we move it ever so slightly, the magic rays of varying light that illumine its surface, that it was an object of profound reverence to the ancients? The possessor was supposed never to grow poorer, but always to increase his substance. The largest known is now in the possession of Mr. Bryce Wright, the well-known mineralogist. It is recorded in the annals of Ceylon, and known to history as the finest in the world. Two stars of lesser magnitude shine by its side, and we are informed that three such stones are not known to exist elsewhere in the wide world.—*London Graphic.*

WEATHER AFFECTING THE MIND.

Dull, depressing, dingy days produce dispiriting reflections and gloomy thoughts, and small wonder when we remember that the mind is not only a motive, but a receptive organ, and that all the impressions it receives from without reach it through the medium of senses which are directly dependent on the condition of light and atmosphere for their action, and therefore immediately influenced by the surrounding conditions. It is a common-sense inference that if the impressions from without reach the mind through imperfectly-acting organs of sense, and those impressions are themselves set in a minor aesthetic key of colour, sound, and general qualities, the mind must be what is called "moody." It is not the habit of sensible people to make sufficient allowance for this rationale of dullness and subjective weakness. Some persons are more dependent on external circumstances and conditions for their energies—or the stimulus that converts potential kinetic forces—than others; but all feel the influence of the world without, and to this influence the sick and the weak are especially responsive. Hence the varying temperaments of mind changing with the weather, the outlook and the wind.—*Anon.*

FENIAN emissaries are said to be actively engaged against the English in Egypt.

FRANCE proposes to make a thorough extermination of the wolves that infest some of its districts.

GUITEAU'S avenger has appeared in the shape of a crank from Chicago, who has gone to Washington.

A SIMLA despatch says 12,000 men could be assembled in Bombay for transport to Egypt in twenty-four hours.

OFFICIAL statistics show that there are 1,580 Americans or Irish Americans in Dublin without visible occupation.

THE last clause of the Repression Bill was passed in the Imperial House of Commons by a vote of 69 to 6, after a 32 hours' sitting.

FLEMING, a Director of the City of Glasgow Bank, has been sentenced to eight months' imprisonment for connection with the failure of the bank.

MR. FRANCIS MURPHY completed his month's temperance crusade in Aberdeen on the 29th ult., when between 2,000 and 3,000 persons assembled in the Music Hall. It was announced that 25,000 persons had accepted the blue ribbon badge in the city, of whom, however, 10,000 were trectolaters previous to the visit of Mr. Murphy.

YOUNG CANADA.

IN SUMMER TIME.

Little young Timothy, how he grew,
Timothy Grass of the meadow;
He grew in the rain, he grew in the wind,
In the sunshine and in the shadow.

At last he was up so very high,
So sturdy and tall and stately,
He looked all over the big, wide world,
And found himself pleased with it greatly.

And looking one day, one sweet June day,
So dreamy and soft and hazy,
He spied, what was it so fair and bright?
A dear little happy young daisy.

How fair she was—fairer than moon or cloud!
How gentle her face and cheery!
He gazed at her fondly all day long,
And never once was he weary.

And when all the tired little meadow flowers,
And the birds and the bees were sleeping,
And only the owl in the far-off wood
His night-watch lonely was keeping,—

So bright she shone through the dim, still night,
In the eyes of her longing lover,
She seemed to be one of the gleaming stars,
Dropped down from the sky above her.

So Timothy wooed her his very best,
Till her heart with true love was filling;
And at last with a sly little flutter and shake,
She answered him back, "I am willing."

So a wedding gay, one sweet, bright day,
Set all the lily bells ringing;
The breezes came floating from over the hill,
The breath of the clover bringing.

And the larks and bobolinks came, their joy
In wildest song expressing;
And the buttercups gave their rarest gold,
And the grasses waved their blessing.

And happily glided their days away
In the wonderful midsummer glory,
Till the scythe of the thoughtless mower came
To end their lives—and my story.

—St. Nicholas.

THE CALL BOY.

You would not know Jim Blake if you were to see him now; why, I had to look twice, and then I wasn't quite sure.

A few years ago, when he used to turn "cart-wheels" along the busy streets, and stand on his head at street corners for a half-penny, he was the roughest little ruffian that ever upset an apple-stall or dodged a policeman round a lamp-post. But now! why, he's a perfect gentleman—of course I mean compared with what he was.

I was walking up to town one morning, when I first saw him in the middle of an excited crowd, fighting like a little madman with a young crossing-sweeper about his own size. I never could find out what they were quarrelling about, but I fancy they couldn't quite agree as to whose property the crossing was, and so were trying to settle it in that silly way. I believe the matter was really settled by policeman X., whose two eyes fell upon them just as I came up, and whose two hands followed suit with very startling results.

Jim didn't stop to argue with Mr. X., not he, but started off like a small express train, lest he should find himself X-pressed to the wrong station.

The next time I saw him he was at a Boys' Home, with a face as bright and clean as the dish-covers that used to hang above the

mantelpiece in my old grandmother's kitchen. You see, like these old dish-covers, he had been polished up a bit, and though when they had him bright and shiny they didn't hang him up above the mantelshelf, they put him in the way of being quite as useful, for they made him "call-boy" on board a river steamer, and I am quite sure, if you heard him calling out "Ease 'er," "Stop 'er," and "Turn 'er astern," you would agree with me that the biggest dish-cover ever yet invented was never half so useful as is Jim Blake.

To tell the truth, Master Jim is just a little proud of being "call-boy" on a steamer. Why, I fancy sometimes he almost thinks himself as important as the captain himself as he shouts out the orders to the engineer below, and what is better still, the captain is so pleased with him that I heard him say the other day that he would not mind cruising all round the world with Jim to help him manage the ship.

The fact is, Jim knows almost as well as the captain does, how to command a boat. He knows when to call out "Go on ahead," without waiting to be told, and do you know he told me one day as he was leaning against the brass railings of the engine-room steps, that somehow it seemed to him as if he'd got a little sort of "call-boy" inside him. Said he: "Sir, you wouldn't hardly believe it, but as I was a-walking past some of them fine shops ashore t'other day, I see a reg'lar strap-pin' pilot coat a-hangin' up quite temptin' like outside a shop, and I ses to myself, I ses, it's getting a bit cold a-mornings now, aboard, and there ain't nobody 'ud see me if I nicked it. You know, sir, I ain't one to stop long a-considerin' about most things, so I just heaved up alongside to haul it in, when this yer little 'call-boy' inside me, he says, says he, 'Ease 'er, stop 'er, turn 'er astern,' and I tell yer, sir, it fetched me right straight up perpendickler-like, and turned me right round, and then, without stoppin' a moment, this yer little chap he says, as plain as ever I said it myself, says he, 'Go on ahead,' and I went on ahead, sir. I've been goin' on ahead, sir, ever since, and 'cept when danger's near I don't mean to stop going on ahead for anyone, and maybe some day I'll be captain of the smartest steamer afloat."

Ah, it's wonderful how useful a good "call-boy" may be, for you see what the little "call-boy" inside Jim Blake did for him.

Why, if it had not been for him, Jim Blake would have become a thief, and if he had become a thief I don't think he would ever have held up his head again. How thankful Jim Blake now is that this little "call-boy" within him was on the lookout and warned him of his danger!

We've all got little "call-boys" somewhere inside our jackets, and the way to keep them on the lookout is to attend to what they say. If the engineer on the steamer paid no attention to Jim Blake, I am quite sure Master Jim would soon get tired of calling out to him, and I am certain the boat would soon go wrong; and if we do not mind what these little "call-boys" inside say, they will very soon leave off calling, and these little ships of ours, with which we are travelling upon the sea of life, will very soon be wrecked and cast away.

It is a grand thing for us when we learn in early life to listen to the voice of conscience.

LITTLE BY LITTLE.

When Charlie woke up one morning and looked from the window, he saw that the ground was deeply covered with snow. The wind had blown it in great drifts against the fence and the trees. Charlie's little sister Rosey said it looked like hills and valleys. On one side of the house nearest the kitchen the snow was piled higher than Charlie's head. Mamma said she did not know how black Aunt Patsey could get through it to bring in the breakfast.

"There must be a path clear through this snow," said papa. "I would do it myself if I had time; but I must be at my office early this morning." Then he looked at Charlie. "Do you think you could do it, my son?"

"I, papa! Why, it is higher than my head! How could a little boy like me cut a path through that deep snow?"

"How? Why, by doing it *little by little*. Suppose you try; and if I find a nice path cleared when I come home to dinner, you shall have the sled you wished for."

So Charlie got his wooden snow shovel and set to work. He threw first one shovelful, and then another; but it was slow work.

"I don't think I can do it, mamma," he said. "A shovelful is so little, and there is such a heap of snow to be cleared away."

"Little by little, Charlie," said his mamma. "That snow fell in tiny bits, flake by flake, but you see what a great pile it has made."

"Yes, mamma; and if I throw it away shovelful by shovelful, it will all be gone at last. So I will keep on trying."

Charlie soon had a space cleared from the snow, and as he worked on, the path grew longer. By-and-by it reached quite up to the kitchen door. It looked like a little street between snow-white walls.

When papa came home to dinner, he was pleased to see what his little boy had done. Next day he gave Charlie a fine blue sled, and on it was painted its name, in yellow letters, "*Little by Little*."

The boys all wanted to know how it came to have such a name. And when they learned about it, I think it was a lesson to them as well as to Charlie.—Mrs. Susan Archer Weiss, in *Our Little Ones*.

DO IT NOW.

Because, if you don't do it now, it will probably be much harder to do when it must be done. If this is the next duty in order, do not shirk it. It may not be pleasant, but it will not probably get any pleasanter from being put off. It is not a good plan to gratify your personal preferences by letting one duty jostle out another. Procrastination is indeed a theft. It is a great blunder to consider it only a theft of time. It robs you not alone of time and an equivalent which may be reckoned in money, but of moral force, of strong sinewy purpose, and of all the results which come from prompt and decisive action. It makes you a slave instead of a ready, cheerful doer.

Scientific and Useful.

POTATO PUDDING.—One pound potatoes boiled and well mashed, one-quarter pound of butter stirred in while warm, two ounces of sugar, the rind of half a lemon chopped fine with the juice, a teaspoonful of milk; butter the tin, put in the mixture, and bake in a moderate oven for half an hour; two eggs may be added.

DESSERT.—An inexpensive and good dessert is made of one quart of sweet milk, two-thirds of a cup of uncooked rice, and a little salt. Put this in tea or coffee cups, set them in the steamer over a kettle of boiling water. Let it cook until the rice is almost like jelly. When cold turn it out of the cup. Serve with sugar and cream or with pudding sauce.

WHITE JELLY.—Buy Swinborne's isinglass gelatin. Soak half of a three-pint packet with two pints of new milk for twenty minutes or so; then simmer up in it for a minute a couple of laurel leaves, or a little lemon rind, also lump sugar to taste, adding a drop or two of an essence whose flavour you desire. Take off the fire and stir till well dissolved, then pour into your mould through muslin. Serve when cold with chocolate creams round.

FISH FOR SUPPER.—When one has fish left from dinner it can be prepared in an appetizing way, and it is a matter of economy to do this. Take out all the bones and cut the fish in very small bits; add a third as much mashed potato as you have fish, or even a little less will do. Moisten it with some melted butter. If you choose to add some sprigs of parsley, do so. Make in fat cakes and fry till brown in a little butter, or make some light crust, line small tins with it and fill them with the hot mixture of fish and potato. Bake till the crust is done.

PUT YOUR SHOULDERS BACK.—Much of the proverbial slenderness and physical frailty of our girls as compared with those of other countries, has been charged to intellectual habits and overwork in study. It is unquestionably true that they need out-door life, and more education in development. Many American girls, through inattention to the way of carrying themselves, unconsciously contract the habit of bringing the shoulders forward, and stooping. This position not only detracts greatly from their appearance, but it is also very pernicious in point of health.

EGGS FOR BREAKFAST.—An appetizing way to serve eggs for breakfast is to scallop them. Boil them hard, chop them not too fine. Line a pudding dish with a layer of bread crumbs, then a layer of cold boiled ham, or bits of fried ham chopped fine, then a layer of eggs, and so on until the dish is full. Moisten with cream and a little butter, season with pepper and salt, set in a hot oven for ten minutes or longer. When thoroughly heated take out and send to the table in the dish, or on slices of buttered toast. Pour a little boiling water over the toast after it is buttered.

BROWN STEW.—Take three pounds of good round of beef, cut in small squares, brown them in a stew-pan in two tablespoonfuls of butter; add two tablespoonfuls of flour, sifting it gradually in and stirring till the flour is brown; cut a carrot small, peel half a dozen small onions, and put with the beef; season with a half dozen cloves, as many allspice, half a teaspoonful of black pepper, a pinch of cayenne, a tablespoonful of mixed herbs, thyme, sage, and marjoram; cover with boiling water and let it simmer steadily for three hours; just before serving, a gill of tomato catsup can be added.

WEAR FLANNELS.—The value of flannel next to the skin cannot be overrated. It is invaluable to persons of both sexes and all ages, in all countries, in all climates, at every season of the year, for the sick and well; in brief, I cannot conceive of any circumstances in which flannel next to the skin is not a comfort and a source of health. In the British army and navy they make the wearing of flannel a point of discipline. Even during the hot season the ship doctor makes a daily examination of the men at unexpected hours, to make sure they have not left off their flannels.

MAKING COFFEE.—A cook who has had a wide experience, and who ignores "improved" and "patent" coffee-pots, gives the following recipe: Grind moderately fine a large cup or small bowl of coffee, break into it one egg with shell, mix well, adding enough cold water to wet the grounds; upon this pour one pint of boiling water, let it boil slowly for ten or fifteen minutes, according to the variety of coffee used, and the fineness to which it is ground. Let it stand three minutes to settle, then pour through a wire sieve into a warm coffee-pot; this will be enough for four persons.



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TORONTO WHOLESALE MARKETS.

OFFICE RURAL CANADIAN, Toronto, July 13th, 1882.

CATTLE.—The market has been fairly supplied during the past week, but receipts are chiefly composed of poor to medium stock. Really choice steers are scarce, and they will bring good figures. Offerings are confined to grass-fed cattle, and the range in prices is from 4c. to 5c. Good butchers' cattle, weighing 1,000 lbs. to 1,100 lbs., sell at 4 1/2 c., and ordinary at 4c. to 4 1/4 c. The supply of sheep has been larger than usual this week, and prices continue steady. Sales of choice have been made at 5 1/2 c., and of ordinary at 5c. The supply of lambs is equal to the demand, and prices are lower than they were a fortnight ago. Sales have been made at from \$2.50 to \$4 a head. In calves the offerings have been fair and values steady. First-class, or those that dress 140 lbs. or over, sell at \$12 to \$15 a head, and those that dress 100 lbs. \$9 to \$11 each. The supply of hogs continues small, and prices are steady at 7c. to 7 1/2 c. per lb.

FLOUR AND MEAL.—The Egyptian war has had some effect on bread-stuffs, inasmuch as holders are asking much higher prices. Business, however, although probably better than last week, has been restricted on account of the advance. Dealers generally are of the opinion that prices will eventually decline on account of the large harvest expected. In flour there has been an improved demand, with a larger movement than for some time back. Prices are higher, in sympathy with the Montreal market, but dealers do not expect that they will continue. On Friday there were sales of 500 barrels of old standard superior extra at \$5.65 to \$5.70, and of new extra at \$5.67 1/2. On Saturday sales of superior extra, old standard, were made at \$5.75, \$5.70, and \$5.75, and on Monday fresh ground extra sold at \$5.80. Yesterday \$4.85 was bid for superior extra, and spring extra offered at \$5.85, with \$5.70 bid. Today business was quiet at unchanged prices. There has been a moderate demand for oatmeal, and prices remain firm on limited offerings. Car lots are worth \$5 to \$5.10, and small lots \$5.15 to \$5.50. In cornmeal the only business doing is in small lots at \$4.15 to \$4.25.

GRAIN.—The transactions in wheat have not been very large. Values are slightly firmer, on account of the higher prices in Britain, but the movement has been restricted, buyers and sellers being apart. The latter part of last week a car of No. 2 fall sold at \$1.24 on track, and yesterday it was held at \$1.27, with buyers at about \$1.25. No. 2 spring is in little demand, with prices firmer at \$1.32, at which price several cars sold today. There was also a sale of No. 2 fall at \$1.25 f. o. c. 16-day. Business in barley has been almost wholly neglected, and prices are purely nominal. There has been a fair demand for oats, and prices have been sustained. Sales have been made almost daily of Western at 49c. on track. No business reported in rye. The prices of corn are firm at 93c. to 95c., in sympathy with the west, but no transactions are reported.

PROVISIONS.—The receipts of butter have not been equal to the demand, and prices consequently have advanced. There have been a good many empty tubs sent to the country, and holders there have packed considerable quantities. The export demand is not quite as keen as it was, owing to the high prices asked, but there are a few buyers at 17c. to 18c. for choice selections. The local supply being insufficient for the wants of the trade, choice tub has risen to 19c. to 20c., and pound rolls on the street sold as high as 25c. on Monday. Since then, however, dealers are not paying over 23c. for the latter. Medium lots, in large rolls or tub, sell at 15c. to 17c. The price of bacon keeps very firm, in sympathy with the Western States markets. There has been a fair demand, but the business consisted chiefly of small jobbing lots. Car lots of long clear may be quoted at 13c., and sales of smaller quantities have been made at 13 1/2 c. to 14c., the latter, however, being an exceptional price. Cumberland cut jobs at 12 1/2 c. to 12 3/4 c. Rolls are worth 13 1/2 c. to 14c., but there are very few in the market. The demand for cheese is good, and stocks have been considerably reduced. Factory lots sell at 16c., and jobbing lots at 14c. to 12c. The demand for hams has been fair the past week and prices firm. Two cars of sweet pickled sold the latter part of last week at equal to 14c. laid down here, and smoked and unsmoked job at 15c. to 15 1/2 c. The trade in lard has been good, and prices are steady. There is a moderate jobbing trade at 15 1/2 c. for Canadian, and 16c. for American refined. The pork market is quiet, with prices firm. Sales of five and six barrel lots are reported at \$24.75 to \$25.

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