

About the House.

PA PLEA FOR CROSS CHILDREN.

When a child is irritable and contrary and seems to be hunting for trouble, the mother should consider a little before resorting to harsh measures. In nine cases out of ten the little one is either hungry or ailing. A well child that has plenty of sleep and good, nourishing food will generally be good-natured and tractable. We knew a little girl who was sometimes troubled up in the morning so helplessly irritable as to disturb the whole household. Her clothes would not go on right; they were too tight or too loose and had bunches in the seams; stockings would wrinkle and her shoes would not button, and she would storm at them all and cry and fairly revel in misery. Nevertheless, her mother did not at once pronounce her a naughty girl and deal with her accordingly. She watched her closely, and saw that after a good breakfast, which she ate eagerly, her good humor returned, and the mountains of difficulty which had blocked her path were as many grains of sand.

After that when girlie got up "out of the wrong side of the bed," as the saying is, her mother would either help her to dress quickly, talking to her encouragingly the while, or, if breakfast was not ready, she would bring her a cup of hot milk to drink before dressing. It was surprising to see how completely a little nourishment would clear the trouble out of the little girl's world. For she was not intentionally illnatured. She was simply faint and nerveless and discouraged, with insufficient force for the efforts she had to make. Her food had not been properly assimilated the day before and her whole system was in a state of semi-starvation.

The same little girl used sometimes to come home from school with a very cloudy face and throw her books down angrily. The teacher was cross, she would complain; she couldn't do her sums and she didn't see why they put words into the geography that nobody could ever pronounce; her seatmate was the hatefulst girl in the whole school and she wasn't going to sit with her another day, and so on. Her mother would quietly open the stove drafts and start a bright fire. Then she would make a little hot toast or fix up a shredded wheat biscuit with cream and sugar, or anything else she happened to have that girlie liked. And then she would say, "Guess you're hungry, girlie; have a little lunch, now; supper's a long way off, yet." And the girlie would eat and the irritation would fade gradually out of her face, and by and by she would be saying: "I had my lessons all perfect to-day, and I've been up head the most times of anybody. Oh, mamma, we had great fun at recess this afternoon throwing snowballs at each other—just soft ones, you know. My seatmate gave me half of a great, big apple she had. She's the most generous girl in school. But every day she gives me something. May I take one of these oranges to her to-morrow?"

HOW TO COOK CABBAGE.

Until within a few years I shared the general belief that cooked cabbage was exceedingly indigestible, and that anyone who was careful of his stomach would refuse to eat it writes a correspondent. I read a book in which the statement was made that the trouble was the way in which cabbage was cooked and directions were given for cooking. I followed them closely and the whole family not only pronounced the dish excellent, but said that it digested perfectly.

Since then we have had cooked cabbage very frequently on our table, and always find it good and healthful as well. Perhaps some of our readers may like to try it. Cut an ordinary sized cabbage into eight equal parts, remove the stalk, wash the cabbage and drain. Put four or five quarts of water into a kettle. When it is boiling rapidly add a level tablespoonful of salt and one-fourth of a level teaspoonful of soda, put in the cabbage; when a hot fire so it will boil up as quickly as possible, then take off the cover and leave it off. Every few minutes push the cabbage down under the water, which must be kept boiling rapidly.

In twenty-five or thirty minutes it should be tender; place in a colander and press with a small plate till the water is all squeezed out.

Put a teacupful of cream in the kettle, if you have it, if not use milk and a little butter; return the cabbage to the kettle; the moment it boils up turn into a hot dish.

BONE MANURE AS PLANT FOOD.

Into the bottom of an old barrel put a layer of unbleached wood ashes. Place a layer of bones on the ashes, filling the barrel with alternate layers of bones and ashes, having the top layer a thick one of ashes. Pour on water, or better, use urine, just enough to keep them wet, but do not allow to leach one drop. In the course of time the bones will heat and crumble at the touch. When sufficiently softened, dump them out on a heap of dry loam, pulverize and mix all up until it is so well incorporated with the loam that it can be easily handled. Keep the barrel under cover and off the ground.

For a few plants one can use a small box, a nail keg, or anything

available. It need not be a barrel to get good results, nor is it essential that the vessel be full, but if one has the bones and the ashes they can hardly secure a better fertilizer for garden vegetables or for flowers. The following, when well mixed, makes excellent guano: Dried muck 3 bushels, hen manure 2 bushels, ashes 1 bushel, plaster 1 1-2 bushels. A while before using, moisten the heap with water or urine and cover with an old cloth.

POTATO PIE.

No 1: Stir 4 beaten eggs into 1 pint warm mashed potatoes, add 1 1/2 cups sugar, 1 cup butter and 1 1/2 cup flour. Flavor with vanilla and bake in one crust.

No 2: Beat together 2 tablespoons sugar, 1 of flour and 3 eggs, add 1 small cup mashed potato, 1 small cup mashed potato, 1 small cup milk and 1 small cup milk and bake in one crust.

Potato Cocoanut Pie: Add to 1 large mashed potato, 1 cup sugar, 1 tablespoon butter, a little salt, 3 beaten eggs, and a small cup of cocoanut soaked in one pint of milk. Bake in one crust, and cover the top with frosting and cocoanut.

Sweet Potato Custard Pie: One pint boiling potatoes rubbed through a colander, 1 pint milk, 1 cup sugar, the yolks of 2 eggs, a little salt and 1 small teaspoon lemon extract. Beat all well together, and bake in one crust only. When baked, spread the top with meringue made with the whites of the 2 eggs and 2 tablespoons white sugar.

ELECTRIC BELL SUBSTITUTE.

A substitute for an electric bell has been devised by a deaf couple. Not being able to hear the bell themselves, and having no servant, they have fixed up an arrangement by means of which when the button at the front door is pressed, the electric lights all over the place light up, and remain so until the button is released. By a reversal of the arrangement, all the lights are switched off when the button is operated after dark.

AN ARMY CORPS.

Something About: How It Is Formed and Commanded.

Now that "army corps" are being raised something about their composition will not be uninteresting. In the time of Frederick the Great armies were still of a size which enabled them to be overlooked and commanded by one man, and the Prussians preserved this system more or less to the days of Jena. But the French Revolution had in the meantime brought in its train a revolution in the art of war, and one of the first steps taken by the leaders of the national armies was the organization of small mixed divisions of all arms, which were first introduced in 1793. As the strength of the armies increased and as higher leaders became trained, these were formed into Army Corps of from two to four divisions. The Army Corps, as a war unit, was first formed in the year 1800, when General Moreau divided his army of the Rhine into corps d'armées. During the Napoleonic wars the divisional and army corps organization, introduced by the French, was gradually adopted by all European Continental nations; but the British army alone, down to 1815, continued to hold by the organization in divisions as the

HIGHEST TACTICAL UNIT.

Napoleon, on the other hand, in the campaign of Waterloo, divided his force of just under 123,000 men into six Army Corps.

An Army Corps is commanded by a general officer and consists of a staff, three divisions of infantry, and corps troops. In the present instance General Sir Redvers Buller will command the Army Corps; and the three divisions, will, in all probability, be given to Lieutenant-General Lord Methuen and Major-Generals Sir Francis Clery and Sir William Gatacre. An Infantry Division consists of a staff and two brigades, with, in addition, as divisional troops, a squadron of cavalry, a brigade division of three field batteries, a divisional reserve ammunition column, a field company of Engineers, a company of Army Service Corps, and a field hospital. An Infantry brigade is commanded by a Major-General, and consists of a staff, four battalions of infantry, a detachment of infantry with two machine-guns, a company of Army Service Corps, a bearer company, and a field hospital.

A DIFFICULT DUTY

in connection with the present emergency is that connected with the transport of the force to South Africa, which is managed by the Transport Department of the Admiralty. Some idea of the amount of tonnage required may be gathered from the fact that it took 47 steamers, with a gross tonnage of 140,000 to convey 19,148 men and 5,908 horses to Egypt in 1882; while to convey 8,136 men and 1,851 horses to the Cape in 1879 required 18 steamers with a tonnage of 55,000. When troops are embarked or when military stores are loaded on board ships, the responsibility of the Navy begins at the water-line, i.e., the military authorities are responsible for bringing the troops to the water's edge, but the representatives of the Navy Transport Department are responsible for conveying them to the vessels and stowing them on board ship. The arrangements for bringing the troops and stores to and from the water's edge are carried out under military staff officers or embarkation and disembarkation officers.

FEEDING THE ORCHARD.

When an orchard of apples or pear trees begins to bear fruit, the land should be enriched at least once in two years. It is a mistaken idea to suppose fruit will grow to full size unless the trees are well fed, and to grow good fruit at the present time, requires a constant watchfulness from the first opening of the spring to the closing of the autumn. In regions where the canker worm is found the trees should be protected by a strip

Agricultural

FEEDING HORSES.

Farmers generally do not give the feeding of their horses the attention it deserves, writes Col. D. McCrae. Balanced rations and food mixtures for the dairy cow and the feeding steer are carefully examined and discussed, but the feeding of the horse is usually all the hay they can eat and varying quantities of oats, according to the work being done. Sometimes even the latter part is neglected.

If a horse is required to do extra hard work he should be liberally and frequently feed. The amount of food given should be regulated by the size and breed of the animal and by the amount and kind of work he is required to do. The horse has a small stomach in proportion to his size; hence frequent feeding when under hard work is necessary. The human stomach can bear hunger far better than that of the horse. If driving on a journey you feel hungry, you may be sure your horse has felt it before you did, and he is needing his feed more than you do.

Opinions differ a good deal as to the watering of horses. Some prefer to have water before the horses in the stall at all times. Others prefer watering only as the horses come in from work or before feeding. Horses should not be watered after meals, as the stomach, being small, is liable to be partially emptied of the undigested food, causing trouble in the bowels and partial loss of the food.

Oats and hay are the ideal horse foods for our country, but because they are the best is no reason why they should be exclusively used. Variety is often much relished by the horse, and with this variety cheapness and economy may be introduced. Good timothy hay, early cut and well cured, is the best hay for horses. Timothy hay is heavier than that of other grasses and contains a large quantity of nutritive matter in a small bulk. If left till it is overripe, it becomes hard and woody. It is more digestible when cut rather on the green side and makes better horse food.

Many farmers feed far too much hay to their horses. They might very well take a few lessons in this matter from the Liverymen, who find that their horses do better and keep healthier on a small allowance of hay.

Race horses in large stables are fed on six to eight pounds of hay and from fifteen to twenty pounds of the best oats, per day, and, if needed, a bran mash once a week—one-third of the hay after exercise in the morning, the balance at night and the oats fed at four feeds. For hunters more hay is given up to ten pounds per day, six pounds loose and four pounds cut, and mixed with his oats, sixteen to eighteen pounds per day. Any farmer can see how much this differs from his feeding, and yet these horses are required to do hard work and sudden exertions, taxing all their powers. In Scotland a favorite winter food when horses are only at moderate work, is cut oat sheaves.

When horses are in the stable much of the time, the feeding needs to be carefully managed. Swede turnips, ruta bagas, are relished by horses and seem better food for them than the carrot. They do well on roots when idle or at moderate work. Cooking food for horses has not been found generally profitable. Elaborate and careful experiments made years ago showed that horses did better on raw food.

Crushed or ground oats are much used. Some horses have a tendency to bolt their feed half chewed, and some of the grain is voided whole in these cases. Grinding helps any such tendency.

In England some of the large companies which work a great many horses give mixed food and use considerable quantities of American corn. The North Metropolitan Company, London, allows for each horse per day about the following rations: Corn, thirteen pounds; oats, three pounds; peas, one pound; beans, one pound; hay seven pounds; cut straw, three pounds, total twenty-eight pounds. The South London Tramway Company gives corn, seven pounds; oats, seven pounds; beans, one pound; hay, eleven pounds; straw, three pounds; total, twenty-nine pounds.

What needs special attention by our feeders is the quantity of hay and the desirability of using a small quantity of straw in the ration. British cavalry horses are allowed ten pounds of oats and twelve pounds of hay on ordinary feed. If out on active service, the oats are increased to fifteen pounds. In private stables and on the farm it is better to give greater variety to the food, and the wise feeder will be guided by the season and the price of foods in keeping his animals in the best of health at the least expense.

Farmers in England buy them, paying as high as \$24 a thousand, for use in their flower beds and gardens. For household purposes a small number of toads could be given homes in an aquarium. At night the toads could be let loose to kill bugs, while in the day they could kill flies. I have built a sort of cage or wire screen a foot wide and two feet long, the top of which is kept open. It is only necessary to put in two or three toads, provide them with shelter, with a dish of water in one corner, and then keep them supplied with bits of raw meat and any other refuse matter calculated to attract flies.

"My attention was turned to the bat through the codlin moth, the insect to blame for most worm-eaten apples. In an orchard near my home I found nine of the grubs of this insect in a minute. Chancing to go to the orchard, hardly a mile away, I found only four of the grubs in an hour's search. There is an old barn near by in which live a colony of between seventy-five and 100 bats. The owner informed me that his apples were always free from worms."

day in the spring appears, unless this enemy is to be destroyed by spraying the trees after the worm hatches out. The tent caterpillar makes its appearance as soon as the leaves begin to grow, and should be attended to by spraying the trees or by using a light pole with a rag wound round the end of it, saturated with kerosene, and drawn through every nest as soon as the worms are all hatched. Do not let them get large before employing some means of killing them. Following the tent caterpillar and canker worm is the codling moth, which, unless destroyed, will lay eggs on almost every apple and pear, producing the worms so destructive to the fruit.

The peach should not be overlooked by those who have land adapted to its growth. A light loamy soil with a northern exposure seems to do best for this fruit, and while the trees should be kept growing, it should not be forced so as to make an excessive growth. A tree that makes large growth is so full of vigor that after the leaves drop in the autumn, if a few warm days come, the blossom buds start so much that the first cold weather kills them.

WATERING COWS.

A milch cow weighing 1000 pounds will take about 80 pounds or ten gallons of water a day when in milk, and about 50 pounds when dry, it is said. Some of this is obtained from the moisture in the food, more of course when at grass than when on hay, and more from ensilage and roots than from dry fodder.

These, however, are only approximate figures, and we think there are large variations, not only due to the character of the food and the amount of milk given, but in the individual animals. We have seen cows that were very heavy drinkers, which would go to the trough every time they were let out, and come back with the udder visibly distended by the amount they would drink, while others, day after day, drank but once a day in winter, and not heartily then.

We would prefer that a cow should have water to drink when she pleases, that she may not take so much at one time, particularly in winter, though the chief trouble in their drinking is that the water in the trough or brook is so cold that so large an amount must chill the animal and arrest the digestion for a while.

DEADLY ENEMIES OF INSECTS.

Toads and Bats Make War on Flies, Roaches and Mosquitoes.

As a result of experiments with toads and bats it has been demonstrated that a house, or even a community, can be rid of various troublesome insects, including flies and mosquitoes.

These experiments were made by Prof. Clinton F. Hodge, Prof. Hodge's first experiment was with the toad. "I constructed a small pen in my garden," he said, "and in it, in a pan of water installed a male and female toad. To attract food for them I placed within the enclosure bits of meat and bone.

The results were as satisfactory as they were unexpected. The toads spent most of the time sitting within reaching distance of the bait and killing the flies attracted by it. I watched one toad snap up eighty-six house flies in less than ten minutes.

"One day, I gathered quantity of rose bugs in a tin box and began to feed the bugs to a toad. At first I did not count, but finding his appetite so good I started to count. When I had counted over eighty bugs and the toad showed no signs of wishing to conclude his meal I picked him up. Previous to my beginning to count he had taken anywhere from ten to twenty bugs. I found the toad equally greedy for rose beetles, canker worms, ants, caterpillars, moths, June bugs, weevils, snails and many other insects. So, too, in a house, a room may be cleared of cockroaches by leaving a toad in it over night.

"A single toad may destroy over 2,000 worms, during the months of May, June and July, and one of these harmless creatures may well do a gardener service to the amount of \$19.88 each season, and yet he can raise \$20,000 worth of toads at an expense of not more than 20 cents.

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A pessimist is one who estimates his sorrows by his joys; an optimist is one who estimates his joys by other people's sorrows.

IN MERRY OLD ENGLAND

THE DOINGS OF THE ENGLISH PEOPLE REPORTED BY MAIL.

Record of the Events Taking Place in the Land of the Rose—Interest in the

Dudley Town Council have decided to borrow £33,000 for electric-lighting purposes.

Before the end of the year they expect to have a telephone communication between Paris and Liverpool.

The Rev. John Foukles, a prominent Congregational minister, died at Aberavon, after a week's illness, at the age of 58.

A stain-glass window, in memory of the Rev. J. H. Rose, M.A., was unveiled in St. James' church, Clerkenwell, recently.

Mr. Herkomer, R.A., has been elected professor of painting at the Academy in succession to Sir W. B. Richmond, R.A., resigned.

The foundation stone of a library and museum, in memory of her Majesty's 60 years' reign, was laid at Weston-super-Mare.

Alice Adams, domestic servant at West Bromwich, was committed by trial charged with the manslaughter of her illegitimate child.

It has become known in Barnsley that Miss Francis Power Cobbe had offered to bequeath her valuable library to the inhabitants.

The M. A. examination pass list of the University of London, issued recently, contains only 18 names, but of them are those of women.

At Westminster a cat-runner named Baneley was sentenced to four months' hard labor for two assaults on people who refused to employ him to move their luggage.

The death is announced, at the age of 87, of Mr. William Avey, J.P., who was highly respected in Redditch, where he was the principal of a big business concern.

At Liverpool Catherine Levens was sentenced to death for the murder of Mary Tracey. She threw a lighted lamp, and Mary Tracey and her husband both succumbed to burns.

Sir E. Bradford, has issued a notice to the effect that the Metropolitan police will prosecute persons selling gunpowder or fireworks to children under 13 years of age.

As showing the widespread interest in golf, it is stated that during the recent matches at Scarborough no less than