Agricultural Department.

HOW TO MAKE HOT-BEDS.

A correspondent of the *Cincinnati Times* says upon the subject:—As it will soon be time to make hot-beds for early cabbage and tomatoes, I will give some of my experience in the last ten years. Any one not experienced might think it a very easy thing to make a hot-bed, but he will find after he has been in the business for years, he will sometimes fail. It requires a great deal more care and attention for early beds than for those later in the season. The first thing is to select a warm, sheltered spot, on the south side of some building, and it should be protected from the cold west winds.

After leveling the ground, haul your fresh horse manure (there should be considerable straw mixed with it), and put in a pile, off to one side, where you want the bed. In hauling be careful to have it well shaken apart, so there will be no lumps in it. After this has lain from one to three days, according to the state of the manure when hauled and the weather, commence and shake the manure evenly over the place prepared for the bed, till the manure is not less than twenty or twenty-four inches thick. It should extend eighteen inches beyond the frame on every side. Before putting on the frame, take a wide board, and begin on one side and go over the bed, laying the board on and pressing down by walking on it. This will keep the surface level. If the weather is cool, the manure should be covered as quickly as possible with earth. Common garden soil will be the best for the first two or three inches on the manure, as it will hold the water better than soil from the weeds, but the top should always be light soil from the woods, and rotted logs. It will not pack or bake after watering. The dirt should not be less than seven or eight inches deep; this will give the plants a good bed to make roots before reaching the manure. As soon as the dirt is on and leveled, put your sash on and cover up tight with boards or straw; then bank up your bed to the top of the frame with manure, and let it remain covered up for thirty-six or forty-eight hours. This will give the bed time to cool off from the first heat, and also any weed seed to germinate that may be in the dirt. Before sowing your seed, rake the bed, and pulverize all the clods; then mark out in rows, north and south not less than six inches apart; scatter in about five or six to the inch; water and cover up again, and leave till the plants begin to come up, which will be in from two days to a week, owing to the heat of your bed.

FATTENING DAIRY COWS.

In view of the comparative scarcity and increased demand for fat cattle, the question occurs whether it will not pay dairymen in putting up stock to be turned in good order, instead of selling it at the ruinously low rate that is customary. The plan now followed by dairymen, and which has been in operation for many years, is to sell off in the fall all animals that do not prove profitable for milk. No attention is paid to putting these animals in condition for the shambles. The prices paid for this kind of stock are usually very low, ranging from $8 to $15 per head for animals in ordinary flesh, and $20 to $25 for large-sized cows for the butcher. In years past the poorer specimens of this kind of stock have been slaughtered merely for the rounds and the hide, and the remaining part of the carcass thrown away. Many an animal that in the spring cost the dairyman from $50 to $60, while proving unprofitable for milk has been sold in the fall at from $8 to $10, or for such rates as could be obtained. Now, the cause of these low prices comes from the poor condition of the stock. It is not fit for marketable beef; the farmer thinks it will not pay to winter it, and therefore disposes of it, making a heavy loss between purchase and sale. The general practice, as above described we believe to be all wrong, and that better results would be obtained by putting at least a portion of the animals in fields and fitting them for the shambles. It seems a great waste to kill an animal poor in flesh. If dairymen would engage more generally in growing roots, turnips and mangolds, the animals could be fattened without any great outlay for meal, and a considerable profit would be obtained from this branch of the business, instead of the loss which is now made. Much of this stock is yielding little or no milk by October. If they were at once dried off and fed a little meal with pumpkins, turnips and other available food from the farm, the animals would be in good order by December, and could be sold at satisfactory prices. And this would be especially the case with young, thrifty stock which have not proved profitable in milk. There are many accidents that occur in the dairy, such as defective udders, the loss of teats, the failing to come in calf, which render it desirable to turn animals that are young and thrifty and which would take on flesh rapidly with a little extra feeding. It is poor economy to sell stock in the fall, when it is out of condition, because it will not bring anything like its real value.

FARMERS AS VETERINARY SURGEONS.

With very few exceptions, farmers are poor veterinary surgeons. In fact, in the majority of cases they do more harm than good in their attempt to combat disease. Their treatment not being according to any system, there being an almost complete ignorance of disease and drugs, in any and every disease, they try every remedy they or their neighbors can procure, in hopes of at last getting the right one. So we see that usually the animal has a more severe trial to survive the remedies than to survive the disease. Usually, they will first say the animal has horn-ail; no matter what the disease, horn-ail is thought of first. For horn-ail their treatment is to take a gimlet and bore a hole in the horn, near the head; then they take a wire and push it into the cavity of the horn and poke it around, not minding the struggles of the tortured animal. Perhaps, after this operation, they don't feel satisfied that it is horn-ail (by the way there is no such disease), but feel sure that it is connected with the head. Well—they argue that the tail is connected with the head, and any operation on the tail is as good as a similar one on the head, so the next thing is to take a knife and split the tail from one to three inches. This is a cruel piece of business, from which no good can result, at any rate, not enough to compensate for the harm done. If it is necessary to bleed, there are much better ways, and no one who is not a veterinary surgeon should attempt it. In fact, it is almost never desirable to bleed in any disease. Without a doubt, it would be well to bleed in a few rare cases, but usually the desired effect can be brought about by some milder treatment. Doubtless there is too much prejudice against bleeding at the present day, and probably physicians will (in a measure) gradually resume this method of treatment in a few years; yet my advice to farmers is—"never bleed, in the treatment of your cattle." Another remedy, much used, should be done away with. It is the practice of injecting with a syringe large quantities of a mixture of water, salt, vinegar and strong pepper, into the nose to "start the nose." This could not be so severely censured if it was only used where it might possibly do good, but the trouble is, they will do it in almost every case of sickness. Then, how often, when everything else has been tried, the whip-handle is thrust into the mouth to push imaginary obstacles down the "gullet." It rarely goes where it is intended—fully as likely to go down the windpipe. Thus we see in the majority of cases the animal is much better off with no treatment, for the usual reckless, haphazard course would tend to produce death more quickly than most diseases. Remember that most diseases will cure themselves if let alone—or more properly, nature in most cases will throw off the disease. If you wish to do anything, give a laxative which can do no harm, and in most cases will do good. If there is indigestion, charcoal, salt, etc., are good. By the way, charcoal will cure almost all the slight sicknesses which hogs have. Powder it and put it in their swill. With educated physicians, hygiene and diet are taking the place, in a great measure, of large quantities of disagreeable drugs.—*By Flavel S. Thomas, M. D., F. M. M. S., in Rural New Yorker.*

WHEN TO PRUNE FRUIT TREES.

Long experience shows that when it is desirable to produce a free growth of shoots and leaves, pruning should be done when the trees are dormant, as in the winter season, or early in the spring, before the sap begins to flow. When fruit trees appear to grow too rapidly, and to produce too much wood, they may be pruned moderately in the summer season, cutting away a portion of the wood by degrees, but a shoot growing in an improper place may be cut away at any time. An experiment made by pruning apple trees every month in the year, for two seasons, showed that the wounds of the branches cut in February and March, at the end of five years, when all had healed over, were found to be the least decayed under the healed surface. When trees are pruned in winter, or I may say at any time, it is best to cover the wounds with a hot mixture of tar, and pulverized brick dust or fine sand. A solution of shellac in alcohol, as thick as can be applied with a brush, is considered by many as the best preparation that can be applied.

During the mild days of winter, orchards may be pruned—while little else can be done; but good judgment should be exercised in regard to selecting the branches to be cut away. It is ruinous to an orchard to cut and slash away one-third to one-half the limbs. All that should be done is to give the trees a good shape, and only cut away such limbs as are plainly in excess of the natural requirements of the tree to conform to the extent of its roots. If we take away too much of the top of a tree, it is like taking blood from a man—the more that is taken, the less vitality remains in him, therefore in pruning, only the few unsightly branches, and those improperly situated, should be cut away.—*Rural New Yorker.*

WHITEWASHING.

The whitewash process is in order this month and next, for fowl houses and fences—inside and out. The common method of half cleansing the poultry premises, has been in vogue so many years, and farmers are so prone to adhere to the old furrow in doing these things, that they need to be reminded every spring and fall that complete cleanliness of fowl-houses and runs is essential to success. In whitewashing the interior of a poultry house do not leave a spot even as large as the head of a pin untouched anywhere. Plash the whitewash liberally into every nook and corner, crack and crevice. If the hennery has a floor of cement, stone, brick or boards, whitewash that also.

The plan of "whitewashing" is a very good and serviceable way to renovate the houses, and to purify the premises. But the use of lime alone in this work, is not so good a method as the following:

Into the whitewash pail, when the liquid is prepared for application to inside work, while the lime water is still hot, drop a tea-cup full of soft boiled rice, and mix it thoroughly through the mass. Then pour into a quart pot of cold water, say ten or twelve drops of crude carbolic acid. Mix this into the rest, and swab the interior of your hen house with it.

For outside work, use rock-salt dissolved instead of boiled rice, and dispense with carbolic acid. No other preparation of "whitewashing" ever equalled this, within our knowledge—and no one who tries this once, will ever be content with any other combination, for poultry buildings.—*The Poultry World.*

Be Liberal to Your Farms.—Be liberal to your farms, and they will be liberal to you. A farm is very much in one respect like a looking-glass—it reflects the character of the owner exactly. If he is parsimonious his farm will show it. If he is a man of taste, his buildings, fences, and general arrangement of his farm will tell the tale. No effort on his part to disguise his real thoughts or sentiments will avail anything so long as the operations of his farm belie his words. The farmer who invests freely in his farm is sure to be paid well for his risk and trouble. Liberality in providing utensils, says the *Western Rural*, is the saving of both time and labor. The more perfect the farmer's tools, the more profitable are they. So, also, it is with his working cattle and his stock. The most perfect in their kinds are most profitable. Liberality in good barns and warm shelters is the source of health, strength and comfort to animals, causes them to thrive on less food, and secures from damage all sorts of crops. Liberality also in the provision of food for domestic animals is the source of flesh, is muscle and manure. Liberality to the earth, in seed, culture and compost, is the source of its beauty.—*Our American Farmers.*

General Hints About Hives.—No one should attempt to keep bees in any but a movable frame hive. The time to make bee-keeping successful and profitable in the old log and box gums is gone. They afford too many hiding-places for the moth and its progeny or worms, and make it too difficult—indeed, next to an impossibility—to extricate them. A good plain movable frame hive, well painted, will last a life-time. Common sense will teach any one that where a bee can enter a moth can enter. The secret of success in bringing out moths is to keep your colonies dry and strong, in a close, well-made hive, and they will attend to that part of the business themselves. The bee-keeper is rich in proportion to the strength of his colonies, and not the number of his hives. If one wishes bees to do well, by all means keep the hives full and strong. It is very important that every hive, of whatever kind, should be provided with a large ventilator, directly, under the combs, covered with wire-cloth, with a slide so arranged that it may be opened as little or much as may be desired.

DOMESTIC.

A HOME MADE COOK-BOOK.

"When a young girl at home I had done considerable pastry-cooking, canned fruits, made pickles, etc., and thought I knew all about housekeeping. But ah me! when I married I found that in many things I was as ignorant as is my little daughter now. But determining to conquer and become a successful housekeeper and home-maker, and believing that regular and well-prepared meals were essential to this end, I eagerly sought information from every available source. Looking back on those days I laugh at my youthful experience, but then it was oftener a cause for tears than laughter. I searched every cook-book I could find, and in all I saw much that was useful, but also much utterly valueless. Then I hit upon a plan of making one of my own, and now, after sixteen years, I would advise all young housekeepers to try the experiment.

"Purchase a blank book with pages all numbered, but put nothing in it save what you have tried or seen tried. Arrange it systematically; divide into different departments, one for meats, another for vegetables, for bread, pies, puddings, etc., allowing space at the end of every section in the body of the book and in the index in which to make entries, as new receipts or directions are found, tried and approved. Any good housekeeper will be glad to furnish you her rules for her own favorite dishes. Write all out definitely, remembering that it is equally important that the ingredients be properly mixed and cooked as that the proper proportions are used.

"In such a book, prepared by your own hand, and each thing tested by you, there is a feeling of reliability which makes it invaluable. What a treasure such a book would be to a daughter, all written by a mother's hand and tested by her judgment and mature wisdom!"—*Correspondent Christian Union.*

To Clean Feathers.—Cover the feathers with a paste made of pipe clay and water, rubbing them one way only. When quite dry, shake off all the powder and curl with a knife. Grebe feathers may be washed with white soap in soft water.

—The proper soil for the calla lily is richest loam and peat, well mixed. When growing, you cannot give the plants too much water. In the window, if the plants are set in a saucer kept constantly filled with water they will be the better for it. In summer the plant will grow well and flower profusely out of doors, in a tank.

Gloss for Shirt Bosoms.—A laundress gives the following recipe for doing up shirt bosoms: Take two ounces of fine white gum arabic powder, put it into a pitcher, and pour on a pint or more of water, and then, having covered it, let it stand all night. In the morning pour it carefully from the dregs into a clean bottle, cork it, and keep it for use. A teaspoonful in a pint of starch made in the usual manner will also give to lawns, either white or pink, a look of newness, when nothing else can restore them after they have been washed.

To Wash Lace.—Roll the lace carefully on a round bottle—a long Cologne bottle is good for this purpose. See that the edging is wound on the bottle very evenly, and none of the purl edging turned in. Have a wash-bowl of warm soap-suds (white soap) ready, and lay the bottle or bottles in it. Have them abundantly covered with the suds. If a fair day, set the bowl in the sun, and let the lace soak several hours. Then rinse through several waters to cleanse from all soap. Blue the last rinsing water slightly, and put in enough gum arabic water to stiffen, no more than new lace, then hang the bottle in the sun to dry. When thoroughly dry, unwrap it from the bottle, and folding it very evenly, lay it in a clean handkerchief or soft towel, and put a heavy weight on it for an hour or two. Never iron lace.

A Clean Floor.—The other day I went to see my friend, Mrs. Cook. She had just finished mopping up her kitchen floor. I noticed it looked very nice and asked how she kept it so well. "Why," she said, "Don't you know I oil it about every six months? That is what makes it so easily kept clean." "Oil!" I said, how do you know that? So then she told me as follows: I take a quantity of the cheapest and least offensive oil (linseed) I can secure, and I apply it with a common paint brush. I put it on smoothly, so that it will strike equally all over, and yet not stand in spots on the surface. I do this at night after the evening work is done and find the place ready for use again next morning. Of course it would not injure the oiled surface itself to tread upon it at once, but grease is liable to be tracked from it, at first, to adjacent parts of the house. A new coat of oil applied once in six months, or even once a year sometimes, is sufficient to keep the floor in perfect order. One may in this way prepare to great advantage the floors of kitchens, pantries, summer dining-rooms, back-rooms, back-halls, stairways, porticoes, closets, bath-rooms and laborers' bedrooms.—*The Household.*