



Agricultural Department.

POULTRY RAISING.

Where so many find it difficult to make a mere sufficiency for life's support it seems unaccountable that the pleasant and profitable business of poultry raising should be so seldom resorted to for the purpose of gaining a livelihood, and establishing a permanent and paying business, while an eager and struggling crowd are jostling each other in every other avenue of industry, no matter how difficult or how meagre and uncertain the remuneration promised.

Poultry raising requires but a modicum of real work, with, of course, the regular and ceaseless attention that must be given to any enterprise to ensure success. The risks attending it are not greater than those appertaining to any other business, if as much. Thoroughness is the great secret to success. The coops must be kept clean and well ventilated; the chicks must have ample room for exercise, and to reap the fullest measures of success, be supplied with comfortable, sheltered and sunny quarters. If they cannot have the run of a grass plot, green food should be given daily, and when practicable, a few feet of earth should be spaded up occasionally, in which they delight to hunt for tit bits of food. Even in large cities it is not impossible to keep a few of the feathered pets; sufficient to furnish the breakfast-table with a delicacy that will harbor none of the distressing doubt that always haunts a market supply, nor any chance rout and ruin of the appetite that always follows the breaking of an aged one. —*Pet Stock and Poultry Bulletin.*

CAN HORSES GO SAFELY UNSHOD?

The feasibility of using horses unshod is being discussed in England. It is ever maintained by some that unshod horses would go better and be surer-footed on London asphalt pavements than shod horses; and an American writer holds the same opinion in regard to the smooth pavements of our Western and some of our Eastern cities, care being taken in first toughening the hoofs. The hoofs are said to harden much as do the at first tender but soon horny feet of barefooted boys. If the shoes have just been taken off, or if in the spring when the hoofs are sensitive from constant moisture soaking, or if they are only used to soft land, which always contains some moisture, the horses must be carefully handled when first driven over hard roads, on which, when unaccustomed, they may become dead lame before travelling a mile. But their hoofs rapidly harden, and, sometimes, according to the experience of one gentleman, become at last so tough that in paring them a drawing knife will not cut them, but steel nippers must be used. It is believed that between July and October, farm teams with a little care, can do the ordinary travel over hard roads with more comfort unshod than shod. As to the objection that draught horses in starting a heavy load have to dig their toes into the ground, one writer maintains that when unshod, they can start the heaviest loads with ease from the flat of the feet; but most horsemen will probably accept this theory with limitations. —*Owenco.*

SOWING GRASS SEED.

The production of domestic animals and manures depends so largely upon our grasses, that the necessity of their cultivation is universally recognized. There are several considerations which give to this branch of husbandry more importance of late years than previously attached to it in the Western States. The wild and nutritious grasses, which occupied the land in its virgin state, have gradually disappeared. Like the Indian and the buffalo, these grasses do not take kindly to civilization, but recede upon the advent of the white man and his methods in agriculture. They are no longer spontaneous, for the changed conditions which a settled population produce are inimical to their growth, hence tame grasses become a necessity.

The rapid increase of dairying in the

North-Western States, and the increased attention given to live stock within the past few years in many localities invest this subject with additional importance, both as regards meadow and pasture. There is room for much improvement in the cultivation of the grasses, and a better acquaintance with the habits and requirements of different kinds; and we may profitably investigate the varieties cultivated, and the methods employed in older countries, whose experience may serve a useful purpose.

In England over thirty distinct species are employed for different soils and purposes. In this country the number sown scarcely exceeds half a dozen. The advantages of the larger number are, that mixed grasses are found to feed animals more profitably than one kind, and that a greater weight can be produced per acre. Some kinds are of temporary duration, while others are permanent; the period of maturity differs, so that when mixed, some are always in the best condition for pasture, and some for meadow, and some prosper best in one kind of soil and some in another. These, and other considerations which might be mentioned, show the advantage of cultivating a greater variety than is usually found in the pastures and meadows of the United States. That a greater variety can be grown successfully in the North-West with proper treatment, has been fully demonstrated in our neighboring State of Wisconsin, under the supervision of our friend W. J. Burdick.

The time for sowing seed will soon be here. Although very much has been said by the advocates of fall seeding to prove that that period possesses advantages over any other, the fact remains that spring seeding is preferred and practised by far the greatest number of farmers throughout the country, and, as we believe, with them rests the weight of the argument. A wide difference of opinion also exists in regard to the quantity of seed per acre. Extreme opinions obtain on either hand; but the proper quantity to sow is governed largely by circumstances. Thin seeding, when the seed is fresh, may succeed well on rich and deeply pulverized soil, while with poor seed on light, thin land, failure and disappointment would be the result. Safety in any case lies in a sufficient quantity of seed to ensure a catch, else weeds will be likely to usurp vacant places and injure the grass. Early seeding is important in obtaining a good catch. Fall preparation of the land enables the farmer to sow early and obtain a good crop of hay. None but fresh, bright seed should be sown whatever may be the kind or mixture. Much of the failure that attends this branch of farming is the result of using immature, foul and comparatively worthless seed, a large portion of which fails to germinate while the land is overrun with noxious growths. Clean culture is a prerequisite of good farming, and the use of foul seed generally results in requiring, at the farmers' hands, a vast amount of additional labor year after year in efforts to exterminate the pests thus introduced. However good the appearance of seed may be, it may be expected that all of it will not germinate because of a lack of vitality, and besides this some that is good will not come, on account of being covered too deeply, hence the utility of sowing a sufficient quantity to insure a catch. As a rule, the depth at which the most seeds of different grasses germinate is half an inch. Circumstances, however, of season and soil, exert more or less influence in this matter. —*Prairie Farmer.*

To BIT A COLT.—The true way to bit a colt is not to bit him at all; that is, let him bit himself. When my colts are one year old, I begin to teach them to hold a bit in their mouth. The bit is of pine, some half-inch in diameter and five inches in length. This piece of soft wood is held in the mouth by a cord tied to either eye and passing over the head, back of the ears. The colt loves to have this in his mouth, because it enables him to bring forward the teething process. He will bite it, and work it over in his mouth and enjoy it hugely. He will welcome it, and will actually reach out and open his mouth for it, as a trained horse will for a bit. After a few days you can tie strings, making miniature reins, to this bit, and teach the colt the proper use of it. When this is done, he is ready for the regular steel bit. Put your bridle on with a leather bit, large and pliant; throw your check-line, if your bridle has one attached, into the pigsty; get into your waggon and drive off.

This is all the "bitting" a colt needs. Treated in this way he will have a lively, yielding sensitive mouth. He will take the bit bravely when working up to his speed, but yield readily to the driver's will. A horse bitted in this sensible way can be driven a forty clip with the lines held in one hand, or be lifted over a five-barred gate with the strength of a single wrist. If you do not believe it, try it and see. —*From W. H. H. Murray's "Perfect Horse."*

MILKING.—The faster and more gentle a cow is milked, the greater will be the amount given. Slow milkers always gradually dry up a cow, and for the reason that if the milk be not drawn about as fast as it is given down, it will subsequently be withheld, and that withheld is as a matter of course what is known as the strippings, in fact, the upper surface of milk in the udder. Many milkers draw the milk with a strong downward pull, in fact with a jerk. This should never be allowed; it irritates the cow, and often injures the bag. Fill the teat, and with a firm pressure of the last three fingers, empty it, drawing slightly on the teat and udder at the same time; so proceed alternately with each hand until the milk supply is exhausted. Many milkers get the habit of slow milking because steady, firm, quick milking tires the fingers and wrists, until by practice the muscles get used to the work. Until this use comes naturally the individual should only milk such a number as they can without severe cramping of the hands; what are milked should be milked fast, increasing the number until at last there is no tiring whatever. Five minutes is about the limit that should be allowed for milking a cow. There is another thing well worthy of being remembered. Cows should be milked as nearly at a given hour morning and evening as possible, since undue distention of the udder is always injurious. —*Ex.*

MINIATURE HOT-BED.—A flower-pot eight inches in diameter was filled one-third full of coarse gravel or pebbles, finishing with finer gravel or coarse sand. Then it was filled to the brim with a mixture of leaf mold (decayed leaves), old manure, and sand, in about equal proportions, all pressed through a fine sieve. This was made moderately firm, and the seeds were pressed down an eighth of an inch and covered. The pot was then placed in a pan of hot (not quite boiling) water, and there left until the surface soil was wet, and then placed upon a store mantel over the kitchen range. The plot was then nearly covered with a pane of glass, a half-inch space being left for ventilation. Simple as is this contrivance, it furnishes every advantage of a hot-bed of the carefulest construction, the stone slab, which is always hot, supplying the bottom heat, which in a hot bed is supplied by the fermenting manure. We advise our friends to try this "epitome" hot-bed. Grass or common seeds of any kind may be used at first to experiment with. —*Rural New Yorker.*

SELECTING GOOD COWS.—There are scores of poor milk cows that are kept actually at a loss to their owners from year to year. There are well-known points by which a prospective good cow may be known, while yet young, and these should be studied, and the poor heifer calves gotten rid of. A cow with her second calf that gives no more than 300 pounds of milk a year should be fattened and killed without delay, for her keeping is costing more than the value of the milk. A cow that pays anything should give from five to six hundred pounds of milk per year. It will pay any farmer to study the points of good cows. The promising calves at ten months or younger by the Guenon method may be selected with certainty from the poor ones. —*Ex.*

COAL ASHES AND CURCULIO.—I have for several years saved my plums from the ravages of the curculio, by the use of coal ashes. They become so completely disgusted with it that they leave for other parts. Just so soon as the blossoms fall I commence with my ashes. I take a bucketful of the ashes under my arm, and with the other hand I dash the ashes all over and through the trees, covering the plums completely with ashes, and go round every few days and give them another dose. If the rain washes it off, I renew the dose and keep at it till my plums are ripe when I am well paid for my trouble. —*Worral in Ohio Farmer.*

GUINEA HENS.—If a man can fill his ears with cotton or move out in the prairie where he has no neighbors, it will pay to

keep a few Guinea hens. They lay more eggs than the common fowl. It is also claimed that one of them will keep one half an acre of potatoes clear of beetles, &c., and at the same time answer the purpose of a barometer in predicting the changes of the weather. If their merits balance their music get some eggs and hatch some; they are good eating, and very pretty. —*Ex.*

DOMESTIC.

STEWED CELERY.—When eaten raw celery is, it must be confessed, rather indigestible; but not so when it is stewed; and not every one knows how good it is stewed. It is very wholesome, and offers an agreeable variety at a time of year when the choice of vegetables is rather limited. It is a good plan for the sake of economy, to use the inner part only of the celery (the heart) for cheese, and to boil the outer sticks, serving them like sea-kale on toast, and pouring melted butter over them; or if the bunches are boiled entire, a little more "trouble and charges" may be given. Celery that is not over-thick is best for stewing, and it is well to trim off the very outside sticks, which will perhaps be rather discolored and coarse. After washing the celery, thoroughly cut off the tops so as to leave the sticks about as long as sea-kale, and trim the roots to a point. Put the celery into boiling water for ten minutes to blanch it, cool it, tie it in bundles of a moderate size, and boil it very gently in salted water till it is tender. It will take about an hour and a half. Take it up and drain it. Make the sauce that is to be poured over it. This may either be good brown sauce, made of stock flavored with carrot and onion and herbs, and thickened with brown thickening; or white sauce,—that is, white stock mixed with cream, and thickened with flower and butter. Lemon-juice is a pleasant addition to the brown sauce, and the yolk of an egg will improve the white sauce—care, of course, being taken to let the sauce cool a minute before the egg is stirred in, and to avoid letting it boil afterwards. I think any one who has taken celery prepared in this way will not be content to dispense with it for the future. It is rather strange that, though in England excellent vegetables are plentiful, they are always put in a subordinate position. The weak point of a dinner in middle-class houses is generally the vegetables; and as to taking vegetables alone without meat, any one who did it regularly would be considered almost an object of charity. The great French cook was right who said that "the greatest single step in advance for the English family dinner would be to decree that regularly every day, either in addition to the pudding or instead of it, there should be one dish of vegetables nicely prepared." —*Phyllis Browne, in Cassell's Magazine.*

BOILING HAMS.—Soak over night in warm water a ham of about ten or twelve pounds weight. In the morning scrape and clean perfectly. Then put it into a large ham kettle filled with cold water and let it simmer, not boil at all, for half an hour. Then pour off the water and put to it more cold water. When it gets hot add a pint of cider vinegar. For a ten pound ham, reckoning after it begins to boil, allow three hours for cooking, and a half an hour for every additional pound; don't let it ever boil very hard—at any time. When done take it out, remove the skin, and stick whole cloves into it, cover with fine bread crumbs and bake a half hour. Put a cut paper frill around the bone, and cover with current jelly and parsley.

CUSTARD PIE.—Beat the yolks of four eggs very light, then the whites, then both together. Spill a level teacupful of sugar into the eggs and beat all well. Add gradually a quart of the richest milk, if it is half cream all the better, and stir thoroughly together, add a level teaspoonful of salt and a teaspoonful or more of any flavoring essence. If spice is used it should be beaten into the egg before the milk or sugar is added to them. Put the deep pie plates (cover with paste before the eggs are beaten) into the oven, and with a cup or ladle fill them carefully to the rims. Bake till the custard is firm. Cover if necessary with a pasteboard or thick paper if the oven is too hot.

POOR MAN'S PUDDING.—One quart of milk; four tablespoonfuls of rice; sweeten to your taste; flavor with nutmeg, and put in butter half the size of an egg; bake in a moderate oven three or more hours. It is an improvement to stand over night.