two feet apart in the row. Each alternate tree in the row can be removed for transplanting purposes in two or three years, leaving the standing trees four feet apart. In from five to ten years each alternate tree can again be taken, and also *all* the trees in each alternate row. What is left will then be eight feet apart. In 15 or 20 years, the thinning can again be done, as last mentioned, thus leaving the standing timber 16 feet apart. This will be all the thinning out required.

13th. Let the land be thoroughly subsoiled to a depth of 20 inches. If the land is then in proper condition to grow an ordinary grain crop, no manure will be required.

PAPER BAGS AND GRAPES.—The practice of bagging grapes is receiving considerable interest with grape-growers. There is no doubt but that inclosing the bunches of grapes in paper bags is of advantage in some cases. For the amateur who wishes to make a sure thing and save a few specimens of new, or old kinds from the birds and bees, or prevent their being spattered with muddy water during heavy rains, paper bags will be quite an advantage. Exactly whether putting each bunch of grapes in a paper bag will prevent their rotting, needs further experiments to determine. It certainly will not if left to be done after it is too late. About the time the grapes are the size of shot is said to be the best time to slip the bags on to prevent rotting. I am convinced that the practice of slipping a paper bag on to each bunch of grapes, never will become popular with those that raise grapes for the millions.—*Rural New Yorker.*

A. J. DOWNING, who was one of the best horticulturists America has ever known, said: "If I were to preach a sermon on horticulture, I should take as my text 'Stir the Soil.' Frequent and deep stirring will enable one to grow fine vegetables on comparatively poor and slightly manured soil, while without it one fails to gain the proper advantage, even from the richest and finest soil.

RARE or choice shrubs may be propagated by layers. Take a strong and vigorous shoot of the present season's growth, slitting the shoot a few inches from its base, and burying it a few inches under the soil, or into a pot of soil provided for the purpose. Any thing can be propagated by layers; and it is an excellent mode of raising rare things that can be but with difficulty increased by any other.—*Ladies' Flora' Cabinet, N. Y.*

POULTRY.

PLYMOUTH ROCKS.

It hardly seems necessary to say much in praise of the Plymouth Rocks, as the real merits of this breed is unquestioned, and their reputation is well established. They may be considered a general purpose fowl, alike adapted for the farmer and market breeder. They are not affected by change of locality, and have the ability to stand the severe climate changes of our country without showing the least sign of deterioration.

With the keeping of the Plymouth Rocks, there is no necessity for having two breeds on a place, in order to obtain both eggs and chickens, as must be done when only the non sitting varieties are kept, thereby increasing the chances of introducing impure blood in one's flock. They are remarkably quiet in disposition, bear confinement well, and are thrifty under all circumstances.

The last decade has witnessed a marked change in the breed for the better. They are now larger, better shaped, more compact in structure, and more evenly plumaged than in former years. They are excellent foragers, hardy and vigorous, mature very fast, and producing a good quality of flesh. They are good egg producers, and maintain a steady course of laying during the greater part of the year. They have but few objectionable characteristics for a breed so recently evolved and modified. They have many intrinsic and facial qualities which are eminently fitted for utility, and for a climate like ours. The comb and wattles being of moderate size, there is less danger of being frozen in cold weather than in breeds which have these appendages largely developed. They are good sitters, fair mothers, and easily handled and managed.—*Poultry Monthly.*

BREEDING IN-AND-IN.

The following applies to animals as well as poultry:

Breeding in-and-in, is the most baneful process that can be practiced. Nothing operates so quickly to lessen the vigor of a breed as this, and, if continued, is ruinous. Sometimes the practice is necessary, if we wish to continue certain peculiarities of shape and qualities, but good judgment will suffice for the purpose of accomplishing the desired object. If we wish to perpetuate certain points, it is best to use only males, and when the close breeding has been continued for a sufficient time, a new blood of cocks may be started by introducing a hen from another yard, and breeding from her alone for cocks. The pullet should be bred from a new hen procured from another source. The selection of the two breeding hens should be done with care, and they should not be inferior to the stock desired to be crossed. We believe in keeping up a strain of cocks, if they possess peculiar merit, and in order to do so in breeding is necessary. If a cock is closely bred, or in-bred, it does not interfere with his value for crossing on common fowls, as the cross alone gives.

Breed true if you desire to attain certain objects. Let not the least taint be introduced among your flock. Cull out the weak, and select the strong, and as long as they display vigor and strength, you have nothing to fear. The first sign of decay is in the eggs. They will not hatch well. After awhile none will hatch. As long as your young chicks come forth strong, and keep in health, the in-breeding is doing no damage.—*Poultry Nation.*

HOW TO FEED FOR EGGS.

Always keep pure bred poultry, not mongrels. Let your poultry have all the old lime, plaster, oyster and calm shells broken up, burned bones, charcoal, and gravel they require, a good dust box to wallow in, plenty of good water—not snow or ice. Sour milk is good, and is much liked by them. In the morning give potatoes and meat scraps, boiled and mashed, thicken with corn meal and wheat shorts. At night feed corn or buckwheat.

On the second morning give a warm breakfast of potatoes or the like; thicken with shorts, or oats and buckwheat ground together. Feed wheat screenings at night, and so on. They should have a warm meal of some kind every morning, and change the feed every day, and not feed steady one kind of food. Hang up a cabbage by the stump; the fowls will work at it until there is nothing left but the stump. Give them two or three times a week a little bone meal in their mash, also a little cayenne pepper. Keep them in good, warm quarters, and clean and free from lice and other vermin. Pullets will lay more eggs in the winter than old hens, if they are early ones—March or April hatch.

It takes a little longer to prepare the morning meal than it would to throw a little corn in the snow or on the manure pile, as a great many do, and then complain that they get no eggs. Follow these rules, and you will have eggs to spare.—*New Southern Poultry Journal.*

THE value of millet as a food for chicks is hardly appreciated as it should be. The variety of diet that should be sought for the chickens is much aided by feeding millet seed. It is nutritious, easily obtained and digested, and much liked by the little creatures themselves, after they once become used to eating it. The golden millet is generally conceded to be the best adapted for this use, being a large seed and very productive.—*Ex.*

THE French kill poultry by opening the beak of the fowl, and with a sharp-pointed, narrow bladed knife make an incision at the back of the roof of the mouth, which divides the vertebræ and cause instant death, after which the fowls are hung up by the legs. They will bleed freely with no disfigurement; pick while warm, and by this method the skin presents a more natural appearance than when scalded.

IT is certainly desirable to keep fowls shut out from the farm and garden at some seasons of the year. The following plan for a cheap enclosure for them has been recommended: Set posts firmly in the ground six feet high, eight feet apart. Take No. 9 wire and stretch from post to post outside, fastening with staples made of wire driven into the posts. Take common laths and weave in, leaving inches between sides of each. This makes the fence four feet high. Then take other laths, picket one end, chamfer the other like a chisel blade, and interweave among the top wires; then shove the chamfered edge down besides the top of the bottom lath, lapping under wires two inches.

DAIRY.

SYSTEM IN DAIRYING.

The Hon. Geo. P. Lord, of Elgin, at the last meeting of the Northwestern Dairymens' Association, in an address on the importance of improving our dairy products, in regard to cheese making, said that like watch making, it cannot be narrowed down to any square rule of mechanical or mathematical device.

In watch making, after all the parts have been made mechanically and mathematically accurate by machinery, the watch maker must allow for "end shakes and side shakes," so as to give a free movement to all its parts, or the watch will not keep time.

So in cheese making, after all the conditions for producing, handling and delivering the milk in good condition have been fully complied with, it will require vigilance and skill to incorporate all the good qualities of the milk into the cheese in such a way as to procure a cheese that will meet public approval and be sought after by the trade.

After the cheese have been properly made they should be allowed to go through the curing process, and become fully ripe before they are placed on the market, and this is attended with labor and expense.

Then, too, there must need be a curing room attached to every factory, where the temperature of the weather can be kept uniform, else the cheese will spoil in the process of curing.

This is probably the weakest spot in our whole system of associated dairying. Few if any of our factories are provided with proper rooms for keeping their cheese at a uniform temperature during the curing process, and are therefore compelled to force them on the market as soon as possible after they are taken from the press.

It is claimed as a reason for this, that the taste is for a mild cheese, and therefore they must be marketed in a green state.

If the market reports are to be relied on, there is but little demand for such cheese, and the only way they can be disposed of is by the forcing process, regardless of cost or price.

If there is a demand for such cheese, why do they not sell as readily and at as remunerative prices as our creamery butter? There seems to be but one use that can be made of our poor cheese. They can be stored in the large warehouses in our commercial markets, and enter on the market reports, and be made to appear as surplus stock on hand, and thus depreciate the market value of our class of cheese.

Were the worthless cheese that now burden our markets stricken from the list of goods in stock, the dealers would see that the supply of cheese on hand was below a legitimate demand, and there would spring up at once an active demand for our merchantable cheese.

Years ago to us on tons of well-made cheese were dumped into the dock in the city of New York, because the demand for them was so light that they could not be sold before the frost had wrought this ruin. Perhaps a better way for disposing of the cheese that now glut our markets, would be to stop making them until the present stock is consumed. If so there is no time better for that purpose than the present, when there is such a demand for butter, and then after we have rid the market of the present stock, let us send that (in) famous skimmer to be deposited alongside of other relics of departed ages, in the patent office in Washington, and resolve that henceforth there shall be no more tampering with the quality of our dairy products.—*Prairie Farmer.*

IMITATION CHEESE.

The following letter from Mr. H. M. Jenkins, Secretary of the Royal Agricultural Society, appears in the columns of the London *Times*: In the House of Commons last night questions with regard to the importations from America of so called cheese made from blue skim-milk and an admixture of either lard or oleomargarine, were answered by the President of the Board of Trade in a manner which places the Royal Agricultural Society of England in a false position before its members and the public. I therefore beg leave to state the facts of the case as the best means of correcting Mr. Chamberlain's statement.

Last April I received two cheeses as a present from the proprietors of a large cheese factory, one of them made with the bluest skim milk mixed with lard, and the other with the same quantity of skim-milk mixed with oleomargarine. The letters which announced their despatch gave detailed information as to their mode of manufacture, and showed clearly the probability that a very extensive trade would shortly be established in these articles if their quality proved sufficiently good for the English market. I handed a samplo of each cheese to my