

THE HORTICULTURIST'S RULE BOOK.—By Prof. L. H. Bailey, Cornell University. New York: Macmillan & Co.; 4th edition; 312 pages. Price, 75 cents; or for two new paid-up subscribers to the FARMER'S ADVOCATE at \$1.00 each.

A compendium of useful and valuable information for fruit-growers, truck gardeners, florists and others. The index contains 2,000 entries, showing the great range of its contents. It is full of useful information relating to injurious insects, with remedies and preventives; recipes for the destruction of insects, for the cure of plant diseases, remedies for injuries from mice, rabbits, etc.; a chapter on lawns, their preparation and care, and the weeds and masses which affect them, with the means for their removal. Other chapters deal with the preparation of wax for grafting, cement, paints and glues, seed tables, planting tables, yields of various crops, computation tables, greenhouse and window-garden work, methods of keeping and storing fruits and vegetables. The concluding chapters treat of collecting and preserving specimens for cabinets or exhibition, perfumery labels, wood, etc., rules for gardeners, standard score cards and scales of points. A glossary is appended as a chapter giving definitions of many technical terms and of familiar words whose meanings are usually well understood. A complete index concludes the book, which commends itself to every intelligent student of horticulture and floriculture. It is an able work and worthy of a place in every household.

THE SOIL.—Its nature, relations, and fundamental principles of management. By F. H. King. New York and London: Macmillan. Price, \$1; or for two new paid-up subscribers to the FARMER'S ADVOCATE at \$1 each.

One of the most practical scientific works on agriculture is a volume on the soil by F. H. King, Professor of Agricultural Physics in University of Wisconsin. To do the work justice it would be necessary to reproduce it, which is impossible. The contents include the introduction, dealing with "Sunshine and its work," "The atmosphere and its work," "Water and its work," "Living forms and their work," and "Over and over again," embracing 21 pages. The twelve chapters have the following headings: "The nature, function, origin and wasting of soils," 6 pages; "Texture, composition, and kinds of soil," 43 pages; "Nitrogen of the soil," 37 pages; "Capillarity, solution, diffusion and osmosis," 26 pages; "Soil water," 19 pages; "Conservation of soil moisture," 30 pages; "Distribution of roots in soil," 23 pages; "Soil temperature," 9 pages; "Relation of air to soil," 21 pages; "Farm drainage," 12 pages; "Irrigation," 15 pages; "Physical effects of tillage and fertilizers," 8 pages. Each of these chapters is subdivided or broken up in such a manner and treated so simply and practically that any reader who is at all studious can gain an accurate knowledge of the underlying reasons for many changes and conditions of the soil. This work is of special value to tillers of the soil, because agriculture has developed into a system of clear and correct thinking; and inasmuch as every man's habit of thought is determined greatly by the accuracy of his knowledge, it follows that a successful prosecution of rural pursuits is largely a subjective matter.

Under the heading, "Management of soil to secure good tilth," the writer has among other things the following to say: "A mellow seed-bed, with its many aerated pores, allows the roots to grow unhindered in any and every direction, and to place their absorbing surfaces in vital touch with the soil grains and soil moisture. In this way the nourishment in the seed produces the maximum root surface in the shortest time, which is an evident and great advantage."

"In the second place our methods of tillage tend inevitably to so alter the texture of the surface soils, especially if they are heavy, as to make the spread of young roots through them more difficult, and hence thorough stirring for tilth becomes more important than it was in the virgin state. The frequent stirring tends to break down the compound grain structure, so that the action of rains, and of stirring when too wet, causes the soil grains to run together into masses of so close a texture that the young roots find difficulty in making their way among them, and are insufficiently supplied with air even if they succeed in doing so. It is this physical change forced upon heavy clay soils which makes it so essential that they be laid down frequently to grass and given time for bringing together again into compound grains the minute particles which frequent tillage tends to separate, and which the rains cause to run together into masses of close texture."

"THE FORCING BOOK."—A manual of the cultivation of vegetables in glass houses. By Prof. L. H. Bailey, Cornell University, N.Y. Published by The Macmillan Co., New York and London, Eng. Price, \$1.00; or for two new paid-up subscribers to the FARMER'S ADVOCATE at \$1 each.

This work is written especially for the commercial grower of winter vegetables, but contains much that is intensely interesting, showing the modern demand for what is choice and early and the modern methods of production whereby frost, snow, and the short, dark days are all set at naught. It is full of hints for the amateur in growing vegetables for his own table. To do this when the snow lies deep against the house affords peculiar satisfaction. The work comprises 266 clearly printed pages, splendidly illustrated wherever a figure or photo-engraving seemed necessary. It is divided into thirteen chapters, finely subdivided so that the details in vegetable forcing are practically treated. The last chapter consists in a summary of the management of the following crops: Asparagus, bean, beet, carrot, cauliflower, celery, cress, cucumber, dandelion, egg-plant, lettuce, mints, musk melon, parsley, pea, pepin, pepper, radish, rhubarb, spinach, and tomato. This work is entirely modern, as is the subject of which it treats, containing the lessons of the most recent researches and developments in this line of advanced horticulture which requires the nicest skill and the closest personal study of plant life. Of special interest are the portions dealing with sub-irrigation, electric light in forcing-houses, and pollination, which is generally done by hand, though bees have been utilized as pollen-carriers in spring and fall when they could forage inside and out at will, but an attempt to use them in winter inside proved a failure from sheer perverseness or some other cause. They spent their time bumping their heads against the panes and probably every one in the swarm went to a honeyless death.



Spring Salads and Greens.

BY MARY E. MILLAR.

"O green and glorious! O herbaceous treat!
"I would tempt the dying anchorite to eat!"

—Sidney Smith.

This class of foods, so welcome at this season of the year, contains but little nutriment of the heat-giving and flesh-forming kinds, but is of value as being rich in saline matters, especially in potash salts, and also because the "crisp, cool succulence" is particularly tempting to a jaded spring appetite. Some contain sulphur and kindred substances which the æsthetic "new woman" prefers to serve to her unsuspecting family in this attractive guise rather than in that repulsive compound which her grandmother considered as indispensable to health and happiness as its equally "delightful" contemporary, spring housecleaning.

Of salad plants the most common is lettuce, but some authorities declare that a few others have a finer flavor, placing pepper-grass at the head of the list. Watercress and endive make very pretty salads, and an attractive appearance is especially desirable here; in fact, one writer affirms that a maker of salads should be an artist and mix the materials as real artists do, "with brains." Whatever may be the ingredients used in concocting a salad, let them be served cold—not lukewarm—and let the green be crisp and, if possible, fresh from the garden. In farm homes a dressing made with cream will be more popular than one containing olive oil, though if the flavor is liked there can be no objection to the use of a fine vegetable oil.

Cream Dressing.—Rub the yolks of three hard-boiled eggs to a smooth paste, add gradually one teaspoonful salt, one-fourth teaspoonful sugar, one-half salt, spoonful Cayenne pepper, one tablespoonful mustard, and two tablespoonfuls vinegar. Chill and whip over ice one pint of cream and add it to the egg mixture a spoonful at a time. This dressing is to be freshly made when wanted.

Custard Dressing.—Melt one tablespoonful butter in a saucepan, add one tablespoonful flour, one teaspoonful each of salt, sugar, and mustard, and a speck of Cayenne pepper; cook till frothy, but not browned, and then add gradually one-half cup vinegar; cook till thickened, stirring carefully to insure smoothness. Heat one cup of milk in a double boiler, add the beaten yolks of two eggs, and cook till creamy like soft custard, stirring constantly. Mix this with the vinegar sauce, beating until perfectly smooth. Use when quite cold. This dressing will keep for weeks if packed in little jars and kept in a cool place. Stir thoroughly before using. One whole egg may be substituted for the two yolks in this recipe, but the resulting mixture will not be so smooth. If a thicker dressing is desired, use a little more flour or cornstarch. A thick dressing is nicer with watery vegetables, while for others it may be better thinned by adding a little vinegar, cream or stock to the quantity to be used. Any special seasoning can also be added to a small portion for certain kinds of salad, such as celery for a chicken salad, or celery salt when fresh celery cannot be obtained, and a few drops of onion juice for a potato salad, etc.

Almost any cold cooked vegetable such as green peas, young carrots, turnips, parsnips, beets, asparagus or cauliflower may be used as a salad with either of these dressings, but with the last three the cream dressing is preferable. A macedoine salad is made of a combination of several kinds, but the vegetables should always be cut fine and in quarter-inch dice or fancy shapes. More nourishing salads are made by using cold cooked chicken or any meat cut fine—not chopped—also canned or cold boiled fish of any kind, and served either with a vegetable or separately.

Egg Salad.—Remove the shells from hard-boiled eggs which have been chilled in cold water and cut them in halves lengthwise. Remove the yolks and rub to a paste, adding an equal amount of chopped and seasoned meat, or fish, and moisten with salad dressing. Carefully place a ball of this mixture in each half white and place on a pretty lettuce leaf. More dressing may be added when served. To make individual salads, which are generally prettier, spread a thin layer of salad dressing in the center of a dainty plate and cover it with a loose bunch of shredded lettuce, keeping it in a neat round shape. Lay on this a prepared half egg and sprinkle over it all a little hard-boiled yolk rubbed through a fine strainer—sometimes called golden rain—or else garnish with tiny triangles or strips of cold cooked beet.

Potato Salad.—For this, cold boiled potatoes may be used, but it is better to cut them in small dice or balls before cooking and then boil in salted water carefully that they may keep their shape without breaking. Some prefer to add the dressing and seasoning while hot, and the garnishings just before serving. These may be varied to suit individual tastes and circumstances, some using onion juice, chopped parsley, celery salt or seed, chopped cucumber pickles, or boiled beets or car-

rots; while others mix chopped walnuts or butter-nuts with the potatoes. To one quart of potatoes add one teaspoonful of onion juice (obtained by wringing chopped onion in a bit of cheesecloth), one saltspoonful of celery salt or seed, and salad dressing to moisten. Put into a pretty salad bowl, with a border of watercress, and garnish with a liberal quantity of chopped beet and the hard-boiled white of egg placed alternately in little mounds. The hard-boiled yolks—if not used in making the dressing—may be rubbed through a sieve and piled in the center with a sprig of parsley or cress.

Cucumber Salad.—Cut a thick paring from the cucumbers and shave into thin slices crosswise, then soak in ice water. Scald and peel three or four large tomatoes, cut them in halves and remove the seeds. Drain the cucumbers, drying them lightly in a towel, and put them in the tomato shells, lay a spoonful of cream dressing on each and serve garnished with endive or parsley.

Spinach Salad.—Cook half a peck of well-washed spinach in a little boiling salted water until tender. Drain and chop fine. Add two tablespoonfuls of melted butter, salt, pepper and lemon juice to taste. Press into little dariole moulds and chill. The moulds should be buttered so it will slip out easily without breaking. Serve on thin slices of cold tongue and garnish with thick salad dressing and parsley.

Domestic Science.

BY MARY E. MILLAR.

We may live without poetry, music and art;
We may live without conscience and live without heart.
We may live without friends: we may live without books.
But civilized man cannot live without cooks.

He may live without books—what is knowledge but grieving?
He may live without hope—what is hope but deceiving?
He may live without love—what is passion but pining?
But where is the man that can live without dining?
—Bulwer Lytton.

THE ECONOMICAL COOKERY OF MEATS.

Foods have already been divided into two classes, animal and vegetable, and we have also noticed that the former, as its composition is more similar to that of our own bodies, is more readily digested or undergoes less chemical change before being assimilated. Yet the housekeeper looks upon the cookery of animal foods, particularly fresh meats, as being less simple than that of vegetables. The difficulty seems to be not so much to have it sufficiently cooked as to prevent certain parts of it from being overcooked.

The value of meats as food depends on the presence of two classes of nutrients, protein and fat; and with these constituents in the proper proportions it would be possible to arrange a diet of meat alone which would provide the heat and muscle-growth of the body, but the vegetable foods supply certain constituents better suited to produce energy.

Meat as it comes to us from the market is composed of water; waste material such as bone, gristle, skin, etc.; fatty tissue, lean or muscular tissue, and extractives on which depend the flavors. The waste portions contain a little nutriment in the form of gelatine of bones, etc., which is extracted by long simmering in soup-making. The water of meat is of no more value than ordinary water; so an economical purchaser will select meat with a good deal of fat, for as a rule the larger the percentage of fat the less water it contains. Besides the fat which is visible there is also, even in lean meat, a certain amount of fat distributed throughout the muscular tissue in minute particles which we cannot see. Cut a piece of lean meat, say a piece of the round, "across the grain," and you will see what are really the ends of little bundles of muscle fibers held together by connective tissue, and tiny gelatinous cells containing a semi-liquid substance. These albuminous juices, the fibrin and the gelatine, are all of food value, yet require somewhat different treatment to bring them into the condition in which they are most easily assimilated and most palatable. The objects of cooking meats are to loosen and soften the tissues so that they may be the more fully exposed to the action of the digestive fluids, to coagulate the albumen, to develop and improve the natural flavors, and to kill injurious parasites which might be present and render them harmless.

The albumen coagulates at a low temperature (of 160° to 170°), it is then soft and easily digested, but at a higher temperature becomes hard and some of its value is lost to us. The fiber of very tender meat, like sirloin steak from a young beef creature, will also be palatable with very little cooking, but if from an old or poorly-nourished animal, or from the "tougher cuts," it will require much longer cooking. For this reason only tender meat should be used for broiling and other methods used in cooking tough meat.

We should fix clearly in mind the principles underlying the cooking of meat, remembering that we wish to obtain the greatest amount of nutriment from all parts of it, and also to retain the natural juices and develop the flavors. True economy teaches us that no part of this may be neglected, for it would be extravagant to sacrifice nourishment for the sake of flavor, though it is important to please the palate and so stimulate the digestive organs to more vigorous action. Prof. Williams says "a veneration of costliness is one of the vulgar vices especially dominant below stairs or among the poor, who, through ignorance, buy expensive cuts when cheaper ones might with proper cooking yield not only better flavor but more nourishment with less expenditure."

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