She drained out every possible drop of butter-milk before beginning to wash with cold water. She washed four times in cold water, and even a fifth time if the water did not run from the butter in a perfectly clear state. The butter should be thus washed immediately after butter-milk is drawn. The different washings should neither be hurried nor delayed. The temperature of the water should be about the same as the churning temperature. She worked the butter as little as possible in order to prevent its becoming greasy. During and after working, the butter should be gradually reduced to the temperature at which it should afterwards be kept, say about 45°, when it became quite firm.

Milk as Food.

The milk of each species of mammals, when of normal quality, is a perfect food for its young. Bovine and human milk do not differ so much but what infants can live upon the former, and grow and be perfectly nourished and healthy, says Prof. Arnold. But while milk is a perfect food for infants, it is not perfect for adults. It is, however, perfectly wholesome for the latter when used in connection with other varieties of food which balance its defects. Life and health can be indefinitely sustained in adults on a diet of bread and milk, potatoes and milk, or rice and milk, the excesses and defects in one balancing those in the other, while neither one alone will long sustain either life or health without faltering. Used in connection with similar foods, milk becomes not only one of the most wholesome and nutritious of foods, but also one of the most economical.

There is little difference between the nutritive value of a pound of steak, the bone being counted as weight, and a quart of milk. The milk used with the same quantity of bread and potatoes that would be taken with the steak will support life quite as long, and at less than half the cost of the steak. As a general rule, a given amount of nutriment in meat is twice as expensive as the same amount in milk. There is further necessity for caution in the use of milk. It has been proved to be one of the most fruitful nurseries for every variety of ferment, and one of the readiest vehicles for the transmission of infection, whether taken in from the blood of the milk-giving animal, or absorbed by contact with infected air. But this danger lies only against the conditions under which it is produced and handled. All animal foods are subject to similar objections.

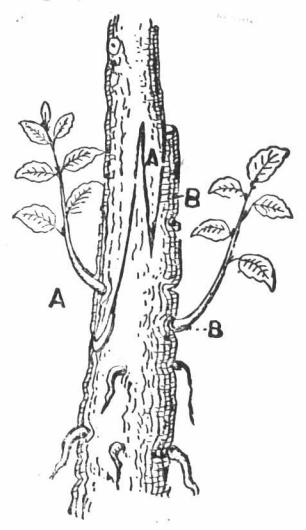
Condensed milk is much to be preferred for adults to milk in its normal condition. The evaporation of more than half of its natural moisture much better adapts its fluidity to natural life; and the addition of sugar to its excessive protein gives a better balance between flesh-forming and heat-producing material for the use of adults, than exists in the native milk, but impairs it for the use of infants. The great advantage from condensing milk lies in its long and almost indefinite keeping. Skim-milk, when used alone, forms a more one-sided diet than milk in any other form. It can be better tolerated by the young and growing than by the old, but it is unsuited to either and should be used in connection with foods that are drier and richer in starch, sugar or fat. Used in this way it can be made to form part of a perfectly wholesome diet. It is better suited for young domestic animals than for human use.

Garden and Orchard.

Planting Apple-tree "Suckers."

A correspondent asks us if it would be advisable to plant the "suckers" which spring out from the roots of his apple trees. This being a question which will interest a large number of our readers we give it special prominence and present the accompanying illustration for the purpose of making the answer plain. If the apple tree is grown from the seed, the suckers, if planted, would produce the same variety of apple as the parent tree, and if the quality is good, no objection can be raised against planting the suckers. However, not one tree in a thousand grown from the seed may produce a good quality of fruit, and none will be the same variety as the parent apple.

In order to obviate this risk, nurserymen have adopted three methods of treating seedling apple trees: (1) The seeds having been thickly sown in spring, the most vigorous seedlings are transplanted into nursery rows when a year old, and budded the second summer; (2) the seedlings are dug up in autumn and root grafted (see the accompanying illustration; (3) the seedlings are planted into rows and grafted at any subsequent time.



We have only to deal with the second case, for the suckers from limb-grafted trees would, of course, produce scrub fruit, and when the seedling is budded, the budding is done a short distance above the ground, so that in this case also the suckers would produce scrub fruit. With root grafting, however, as will be seen by the illustration, the growths may be from the stock or from the scion. The upper portion of the stem, represented by A A, is the scion, and the lower portion, containing the rootlets, is the stock. The illustration shows how the grafting is done. The suckers would most likely come from the stock, but if the grafting is not well done, and the tree is planted so that part of the scion will be below the ground, then underground offshoots may also spring up from the scion. It will be seen that the offshoot at A is from the scion, and the sucker at B springs from the stock. Now if suckers from the stock be broken off and planted, the chances are one in a thousand that the fruit will be of good quality, while if offshoots from the scion be planted, the fruit will be just the same as that produced by the parent tree. It is true that the suckers may be budded or root-grafted, like seedlings, but then no advantage would be gained over the practice of sowing the seeds and operating upon the seedlings.

If the stock is produced from the ordinary apple seed, the inexperienced eye may not readily detect any difference between the suckers and the offshoots without examining the callous, for all the leaves may present the same general appearance; but sometimes dwarf stocks are imported from Europe and used instead of seedling stocks in which case the difference between suckers and the offshoots is quite distinguishable. The Paradise tree is no larger than the currant bush, but when the stock is root-grafted with a scion of the ordinary apple tree, the resulting tree will grow 6 to 8 feet high and will bear in two or three years. The Doucin, another imported stock, will produce a size between the dwarf and the natural standard.

Winter Treatment of Onions.

A warm place never answers in which to store onions over winter. Warmth will start the bulb into growth—a direct blow at its vitality for keeping. Onions keep much better in a frozen state through the winter, provided the thawing out in the spring can be gradual, and provided further, that there is no liability of alternate freezing and thawing during this time.

In a barn loft, covered with hay or straw a foot or more thick, the conditions for perfect keeping are well met. The onions should not be in large piles, but rather in layers of not more than one foot through. By this course of treatment, the risk of keeping is small indeed, and those who assume it may expect a reward in much higher prices in the spring than if sales had been made before winter.—[Popular Gardening.

Ducks in the Garden.

Of what are termed large water-fowls, including ducks, geese and swans, the former are well entitled to consideration for use and ornament about gardens and elsewhere, even if living water for them is lacking. Not but that it is far more desirable that ducks have access to a lake or stream, than otherwise, but they will get along with a small supply of water in a pond or tank a few feet across, in a way that the others could not near so well do.

Kept in such a manner, and ducks will not only be found profitable and ornamental about a garden, but serviceable; they offer the advantages of being voracious insect consumers, and of neither scratching up seeds or roots or flying about mischievously. It is a special recommend that they will destroy those great plagues of the garden, namely, slugs, a thing that even hens will not do. One of our friends once had a garden on sandy soil, which as a result of the heavy manuring needed to fit the soil for vegetation, became terribly filled with slugs, cutworms and other insects; the young plants were destroyed and roses and other bushes greatly marred.

Some ducks were suggested. Eight or nine of these were bought, turned into the garden and given free range. The result was most astonishing; in a few months the insects seemed entirely used up, after which the flock of ducks was reduced to three, and these kept to guard against further trouble.

To be sure, some things can be brought against the keeping of ducks in the garden, but these do not offset the benefits. They have a great liking for strawberries, about the only fruit they will trouble. Keep them from the strawberry enclosure during fruiting time and trouble is averted. The Muscovies eat buds and young shoots,—we can keep other kinds