

- (2.) Fractional or Intermittent Sterilization Method.
- (3.) Open-kettle or Hot-pack Method.
- (4.) Cold-water Method.

Of these methods the one recommended for home use is the Single-period or Cold-pack Method. It is much the best, because of its simplicity and effectiveness, and in this book detailed instructions are given for its use. The outlines of the various methods are as follows:—

(1.) *Single-period or Cold-pack Method.*—The prepared vegetables or fruits are blanched in boiling water or live steam, then quickly cold-dipped and packed at once into hot jars and sterilized in boiling water or by steam-pressure. The jars are then sealed, tested for leaks, and stored. Full details of this method are given in the following pages.

(2.) *Fractional or Intermittent Sterilization Method.*—Vegetables are more difficult to can than fruits because of the presence of spore-bearing bacteria, which are more resistant to heat than yeasts or moulds. These bacteria will live and decompose vegetables even with the exclusion of air. They reproduce by spores which retain vitality for a long time even at boiling temperature, and on cooling will germinate. For this reason, therefore, in order to completely sterilize some vegetables it is necessary to boil for one hour on three successive days. The boiling on the first day kills all the living bacteria, but does not kill the spores. As the jar cools the spores germinate and the boiling on the second day kills the fresh crop of bacteria. The third boiling is to ensure perfect sterilization. This method is known as the Intermittent Method and is strongly recommended for the canning of peas, beans, corn, asparagus, greens, pumpkin, and squash. Variations in soil, moisture, and climatic conditions from year to year make cause of failure one year when success has always attended the One-period or Cold-pack Method.

(3.) *Open-kettle or Hot-pack Method.*—Vegetables or fruits are cooked in an open kettle and packed in hot jars. There is always danger of spores and bacteria being introduced on spoons or other utensils while the jars are being filled. This method should never be used in canning vegetables; even with fruits it is not as desirable as cold-pack.

(4.) *Cold-water Method.*—Rhubarb, cranberries, gooseberries, and sour cherries because of their acidity are often canned by this method. The fruits are washed, put in sterilized jars, cold water is added to overflowing, and the jars are then sealed. This method is *not always successful*, as the acid content varies with the ripeness and the locality in which the fruits are grown.