

1 lb. sugar . . . . .	2 breakfast cupfuls.
$\frac{1}{2}$ lb. sugar . . . . .	1 small teacupful.
1 oz. sugar . . . . .	1 tablespoonful.
$\frac{1}{2}$ oz. sugar . . . . .	1 dessertspoonful.
$\frac{1}{4}$ oz. sugar . . . . .	1 teaspoonful.
1 oz. butter . . . . .	1 dessertspoonful.
1 oz. glucose . . . . .	1 dessertspoonful.
1 oz. honey . . . . .	1 dessertspoonful.
1 pint water . . . . .	2 small breakfast cupfuls.
$\frac{1}{2}$ pint water . . . . .	1 small breakfast cupful.
1 gill water . . . . .	1 small teacupful.

Small weights often go amissing, so it may be useful to know that

Three pennies weigh . . . . .	1 oz.
One penny and one halfpenny weigh . . . . .	$\frac{1}{2}$ oz.
One halfpenny and one farthing or one threepenny bit weigh . . . . .	$\frac{1}{4}$ oz.

## CHAPTER IV

### SUGAR-BOILING

SUGAR may be boiled on an ordinary range, a gas-stove, or ring, and even a chafing dish can be made to do good service in the way of sweet-making.

During sugar-boiling one danger has always to be guarded against. Sugar, being originally a crystalline substance, always tends, when in the form of a syrup, to crystallize out and change from syrup to sugar crystals and water. This danger is guarded against in three ways:—

- (1) By adding to the syrup some substance, such as glucose or cream of tartar, which "greases" the sugar or makes it less likely to granulate.
- (2) By melting sugar very thoroughly before allowing syrup to boil.
- (3) By brushing round sides of pan during boiling, so as to dissolve any crystals forming there.

Any impurity or scum on the surface should be removed as soon as the syrup boils, and it may be noted that pure sugar and water show no tendency to boil over. Once the syrup has been freed of all grit and scum, the boiling may be allowed to proceed briskly till the required degree is reached.

There are seven clearly marked stages of sugar-boiling which the skilled chef can test by sight and touch, but which the amateur can only safely judge of by means of the thermometer:—

Stage 1. Pearl . . . . .	220°
" 2. Thread . . . . .	235°

Stage 3. Soft Ball . . . . .	240°
„ 4. Hard Ball . . . . .	250-255°
„ 5. Crack . . . . .	280°
„ 6. Hard Crack . . . . .	310°
„ 7. Caramel . . . . .	350°

Not only would the amateur experience uncertainty as to the stage reached by the syrup, but in addition the testing of hot syrup by means of the fingers can only be performed, without danger of accident, by a very skilful hand.

#### Recognised Method—

1. Dissolve sugar slowly in water.
2. Remove impurities from surface when sugar boils.
3. Boil for a few minutes with lid on to dissolve any sugar crystals on sides of pan.
4. Heat thermometer and place in boiling syrup.
5. Brush round sides of pan with water to prevent sugar crystallizing during boiling.
6. Boil exactly to required degree.

Pans, thermometer, spatulas, must be kept entirely free from any hardened sugar, or granulation will take place and the whole painful be spoiled.

If this accident should happen, the whole process of melting down and boiling must be gone through again from the beginning.

The following syrups and glazes form good examples of boiling to different degrees, and may be included in this chapter:—

#### (1) Stock Syrup.

##### Ingredients—

1 lb. granulated sugar. | 1 pint water.

*Method.*—Dissolve sugar slowly in water. When it comes to boiling point remove scum from surface.

Put on lid and boil for a few minutes to allow condensing steam to clear any crystals of sugar from sides of pan. Boil to 20 degrees on saccharometer and bottle for use.

If desired this syrup can be clarified in the following manner:—

Pour the syrup over stiffly beaten whites of two eggs, and

return to pan and simmer till whites have coagulated, and then strain and test as before with saccharometer.

#### (2) Coating Syrup.

##### Ingredients—

1 lb. granulated sugar. | 1½ gills water.

*Method.*—Dissolve sugar in water in usual way. Remove impurities from surface. Heat thermometer by placing it in a jug of boiling water, and then transfer it to pan of boiling syrup.

Boil to 236° F., and use as directed in recipes where its use is required.

#### (3) Crystallizing Syrup.

##### Ingredients—

1 lb. granulated sugar. | ½ pint water.

*Method.*—Melt and clear in usual way. After it has boiled for five minutes test with saccharometer, and remove from fire when it registers 34.5°. Cool before using.

#### (4) Clear Hard Glaze.

##### Ingredients—

1 lb. granulated sugar. | 1½ gills water.  
3 drops acetic acid.

*Method.*—Dissolve sugar in usual way, and when scum is removed add heated thermometer and boil to 270°, then add acetic acid and boil to 310°. The glaze is then ready for coating glacé sweets.

#### (5) Sweet Glaze.

##### Ingredients—

1 lb. granulated sugar. | 3 drops acetic acid  
1½ gills water. | 1 dessertspoon syrup or honey.

*Method.*—Proceed as directed for clear hard glaze, adding honey immediately sugar is dissolved.