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[1914.

# DEPARTMENT OF PUBLIC HEALTH.

"The Health Act, 1911.12."

# FOOD AND DRUG REGULATIONS, 1913-14.

No. 14582.-C.S.O.

THE HEALTH ACT, 1911–12.

2908/12.

Colonial Secretary's Office, Perth, 12th June, 1914.

HIS Excellency the Governor in Council has been pleased, on the advice of the Advisory Committee, to make and approve the following Regulations under the provisions of "The Health Act, 1911–12."

F. D. NORTH, Under Secretary.

# DEPARTMENT OF PUBLIC HEALTH.

# FOOD STANDARDS AND REGULATIONS

(made under the provisions of "The Health Act, 1911-12").

# GENERAL REGULATIONS.

#### 1.—LABELS.

- (1) "Package" includes every means by which goods may be cased, enclosed, contained, or packed.
- (2) "Label" means any written, pictorial, or other descriptive matter written on or attached to any package containing a food or drug for sale.
- (3) Every package of food packed or enclosed for sale shall bear a label attached to it containing such information as is required by the Act and Regulations.
- (4) The contents of the label shall include the following particulars :---
  - (1) The name of the substance or product;
    - (2) In case of compounded, mixed, or blended foods, words which indicate that the contents are compounded, mixed, or blended, together with the words "Imitation," "Compound," "Blend," or other words as the case may require.

2601]

- (3) Statements of ingredients and of derivatives or preparations of ingredients required to be declared, and of the quantity or proportion in which they are present; statements of the nature of any extraneous substance of which the presence is required to be declared (such as permitted preservative, harmless colouring, and flavouring); statement of the net weight or measure of the contents of any package; and any other prescribed statement.
- (4) Name of manufacturer or importer, or vendor.
- (5) Place of manufacture or country of origin.
- (5) All the particulars required by the Act or Regulations shall be printed in a portion of the label which shall be directly attached to the package, and shall be in a position equally prominent with that of the name of the substance or product and the name of the manufacturer. Upon this portion of the label there shall be no other words than the actual words required by the Act or Regulations.
- (6) The statements required by the Act and Regulations shall appear together in bold-faced sans-serif capital letters of not less than six points face measurement, printed in such colours as to afford a distinct colour contrast to the ground. Notwithstanding anything to the contrary in these Regulations contained, words required to be written in letters of size of not less than six points face measurement may be written in letters of proportionately reduced size when the package containing a food or drug for sale is so small as to prevent the use of letters of the prescribed size.
- (7) The label shall not contain any statement, claim, design, device, fancy name, or abbreviation which is false or misleading in any particular concerning the articles or the ingredients or substances contained therein, or concerning the quality or the physiological or therapeutic action or the food value of or the place or origin of the said ingredients or substances.
- (8) The label shall not include any comment on, reference to, or explanation of any statement required by the Act or by the Regulations which directly or by implication, contradicts, qualifies, or modifies such statement or the contents of such label.

#### 2.—PRESERVATIVES.

(1) The addition of a preservative substance to any article of food, except as specifically permitted by the Regulations, is hereby prohibited.

(2) Formic aldehyde, boric acid, hydrofluoric acid, hydro-fluosilicic acid, sulphurous acid, benzoic acid, salicylic acid, beta-naphthol, and preparations, compounds, and derivatives of the said substances or any of them, and every substance which, when added to food, has the property of arresting or impeding fermentation or putrefaction of food, shall be deemed to be preservative substances within the meaning and for the purposes of the Regulations.

(3) No more than one kind of preservative substance shall be added to any one kind of food, nor to any mixture of two or more kinds of food.

(4) There shall be written in the label attached to every package containing any food mixed with a preservative substance, in bold-faced sans-serif capital letters of not less size than six points face measurement, a statement in the following form :---

#### PRESERVATIZED.

THIS FOOD CONTAINS NOT MORE THAN [here insert the number] GRAINS OF [here insert the chemical name of the preservative] TO THE [here insert the word "pound" in the case of solid food, or the word "pint" in the case of liquid food].

(5) This regulation shall not apply to salt (sodium chloride), saltpetre (potassium and sodium nitrate), sugar, spices, wood-smoke, vinegar, and acetic acid added to food.

# 3.—FLAVOURINGS AND COLOURINGS.

(1) The addition of a flavouring substance, or of a colouring substance, to any article of food, except as specifically permitted by the Regulations, is hereby prohibited.

(2) When an artificial colouring or an artificial flavouring has been added to any article of food, there shall be written in the label attached to any package of food so coloured or so flavoured, in bold-faced sans-serif capital letters of not less than six points face measurement, a statement in that one of the three forms following which indicates the fact of admixed colouring, or of admixed flavouring, or of both, as the case may require :—

ARTIFICIALLY COLOURED. ARTIFICIALLY FLAVOURED. ARTIFICIALLY COLOURED AND FLAVOURED.

Provided that this Regulation shall not apply to the following foods :----

Full milk cheese,

Confectionery,

Pastry (except colourings which represent the colouring of eggs or chocolate), Ice-cream and ices,

Butter,

Fruit Jelly crystals :

Nor to the colouring of the following articles when they are artificially coloured with caramel only :—

Spirits, Vinegar, Sauces, Non-excisable fermented drinks, Summer or "temperance" drinks.

# 4.—POISONOUS METALS IN FOODS.

No food substance shall contain any antimony, arsenic, lead, tin, or other poisonous metals, or compound of any of them. It shall not be a contravention of this Regulation if the food substance specified in the following list contains not more than the quantities of the metals or their compounds specified in each case : Provided that such metals or compounds are unavoidably present in the food substance :—

Regu- lation.	Food Substance.					Arsenic, calculated as Grains of Arsenious Oxide, As <sub>2</sub> O <sub>3</sub> .	Lead calculated as Grains of the Metal.	Tin calculated as Grains of the Metal.
17	Cream of '	Fartar				1-100th per lb	1-7th per lb.	Nil
18	Baking Po	wder				1-100th per lb	1-7th per lb.	Nil
184	Custard P	wder		••		1-100th per lb	1-7th per lb	Nil
21	Malt and I ed in I	Malt Pr Regulati	eparat on 21	ions in	ielud-	1-100th per lb	1-7th per lb	Nil
23	Vegetables	(in tin	s)			Nil	Nil	2 per lb.
28	Milk and ally sea	Milk Pa led in	roducta	s (heri	netic-	Nil	Nil	2 per lb.
40	Sauces					I-100th per pint	1-7th per pint	2 per pmt.
41	Vinegar					1-100th per pint	1-7th per pint	2 per pint
43	Pickles					1-100th per lb	1-7th per lb	2 per lb.
44	Glucose					1-100th per lb	1-7th per lb	Nil
45	Honey					Ñil	1-7th per lb	2 per lb.
50	Fruit and in tins	Fruit P	roduct	s cont	ained	Nil	Nil	2 per lb.
53	Citric and	Tartari	ie Acid	ls		1-100th per lb	1-7th per lb	Nil
62	Non-excisable Fermented Drinks			ks	Nil	1-100th per gal.	Nil	
63	Summer or "Temperance" Drinks				rinks	Nil	1-100th per gal.	Nil
67	Ale and B	eer	••			1-100th per gal.	Nil	Nil

N.B.-The quantities here specified refer to the total contents of the container.

# 5.—STATEMENT OF WEIGHT OR MEASURE.

(1) The statement of the true weight or measure of the contents required by the Act to be written on or attached to every package of food packed or enclosed for sale shall be expressed n the following way, namely :---

- (a) In the case of every package of solid food which contains a less quantity than fourteen pounds weight, in pounds, ounces, drachms, and grains:
- (b) In the case of every package of liquid food which contains a less quantity than one gallon, in quarts, pints, fluid ounces, drachms, and minims.

(2) All articles sold by weight under the Act shall be sold by avoirdupois; provided that drugs when sold by retail may be sold by apothecaries' weight; and all articles sold by fluid measure shall be sold by Imperial Standard measures of capacity.

# 6.-PERMITTED VARIATION FROM STATED WEIGHT OR MEASURE.

A variation from the stated weight or measure which shall not exceed five parts per centum shall be permitted if the weight or measure of the contents of six packages of the same description and brand of food is found to be of or above the stated weight or measure; and in the case of bottles of three ounces in capacity or under, a variation in contents not exceeding seven and a-half parts per centum shall be so permitted.

7	PRESCRIBED	SIZES	OF	LETTERS.
			1000	

The following shall be the sizes and descriptions of the letters used in labels :-----



# 8.—ARTIFICIAL SWEETENING SUBSTANCES.

No person shall sell any food containing saccharin, saxin, dulcin, glucin, or any synthetic sweetening substance, except as specifically allowed by the Regulations.

# 9.—EXEMPTIONS FROM CERTAIN LABELLING PROVISIONS.

Packages of food named or indicated hereunder shall be exempt from all the provisions of the Act which require that every package of food packed or enclosed for sale shall bear a label, except such requirements as to labelling with regard to quality, flavouring, colouring, preservation or medication as are specifically required by the Act or these Regulations.

- (1) Simple or uncompounded food substances, weighed, counted, or measured in the presence of the purchaser.
- (2) Bread.
- (3) Food substances, in unsealed packages, packed on retail premises for ready sale thereon.

# 9a.—EXEMPTIONS FROM STATEMENT OF TRADE DESCRIPTION AND MEASURE OF CONTENTS.

Packages of the food named or indicated hereunder shall be exempt from such of the provisions of the Act as require information by an accompanying or attached label or statement as to the trade name or description, and as to the weight or number or measure or volume of the contents :—

(1) Brewed ginger beer.

# 10.—EXEMPTIONS FROM STATEMENT OF WEIGHT, MEASURE, OR NUMBER.

Packages of food named or indicated hereunder shall be exempt from such of the provisions of the Act as require information by an accompanying or attached label or statement as to the weight, measure, or number of the contents :---

Aerated waters, summer drinks, non-excisable fermented drinks. Alcoholic liquors liable to Customs or Excise duty. Anchovies. Australian wines. Biscuits. Calves' feet jelly in tins or bottles. Capers in bottles. Cheeses marked with a statement of weight, followed by the words "when packed." Chutney in bottles. Confectionery in packages of two pounds weight or under. Cordials and syrups, artificial cordials and syrups, compound cordials. Curry powder in bottles. Custard powders. Dried culinary herbs. Dried codfish in blocks. Dried figs. Dried fruits in packages of two pounds weight or under. Fish in tins. Flour in bags of twenty-five pounds weight and over. Fruits in bottles. Ginger in jars or in fancy packages. Ginger-beer powders and other beverage-powders. Hams marked with a statement of weight, followed by the words "when packed." Hops in packages of one pound weight or under. Jelly crystals, blanc mange powders, and other food substances sold with directions to dilute to a definite amount or to taste ; condensed and concentrated milks excepted. Ox tongues. Pickles in bottles. Pop-corn. Potted meat and pastes. Rennet. Salt in tins or bottles. Salt substitutes in tins or bottles. Sauces. Soup in packets.

Soup sausages.

Vegetables preserved in tins.

Food substances supplied in bulk for resale.

This Regulation shall not apply to any of the said foods when packed or enclosed in a different manner from that specified herein.

# 11.—EXEMPTION FROM STATEMENT OF NAME OF MANUFACTURER OR IMPORTER SUBJECT TO CERTAIN CONDITIONS.

Exemption from so much of Regulation 1 as requires the statement upon the label of the name of manufacturer or importer may be obtained upon compliance with the following conditions :---

- (a) The person or firm seeking such exemption shall deposit with the Commissioner of Public Health a copy of every label used or intended to be used upon any package of food, drug, disinfectant, or deodorant, in respect of which exemption is sought.
- (b) Such person or firm shall insert upon the label of every such package a registered serial number as may be determined in every State or Federal Territory.
- (c) This number shall be accompanied by the name or abbreviated name of the State of origin, or the place where the article is packed, thus :---

Name of State.			Seri	al Numl	oer.		Abbreviation.
Federal Territory		. No.	[here	insert	No.]		F.T.
Queensland		. No.	· ,,		,,		Q.
New South Wale	es .	. No.	. ,,	,	,,		N.S.W.
Tasmania		. No	. ,,	,	,,		Tas.
South Australia		. No	. ,,	,	.,	• •	S.A.
West Australia		. No	. ,,	,	,,		W.A.
Victoria		. No.	,	,	,,		Vic.

(d) Such person or firm shall sign an undertaking in the following form :---

"I hereby agree, in consideration of WE hereby agree, in consideration of being exempted from compliance with that portion of Regulation 1 which requires the statement of  $\stackrel{\text{my}}{_{\text{our}}}$  name upon the label of every package of food, drug, disinfectant, or deodorant imported or manufactured, or sold by  $\stackrel{\text{me}}{_{\text{us}}}$  to insert upon the label of every such package, upon which  $\stackrel{\text{my}}{_{\text{us}}}$  name does not appear the number [here insert the number] and abbreviation [here insert abbreviation]; and  $\stackrel{\text{I}}{_{\text{we}}}$  further agree to accept full responsibility for the contents of every such package purchased unopened.

- (e) It shall be illegal to advertise on the label or to the public through the Press or otherwise, that the registered serial number under the Regulations is any guarantee or warranty of the quality of the goods; and any use on a label, by any manufacturer or importer, of the word guarantee shall not be of such a nature as to indicate directly or indirectly that the goods are guaranteed by the State or the Commonwealth.
- (f) This Regulation shall not interfere with the right of any manufacturer or importer to provide and publish his own guarantee to the effect that his goods are in full compliance with the laws regulating the purity of food and drugs.

#### SPECIFIC REGULATIONS.

# 13.-FLOUR, BREAD, AND MEALS.

#### FLOUR.

(1) Flour is the fine, clean, and sound product obtained by bolting wheat-meal. It shall not be artificially bleached; it shall contain not more than thirteen and five-tenths parts per centum of moisture, not less than one and two-tenths parts per centum of nitrogen, not more than five-tenths of one part per centum of fibre, and shall yield not more than one part per centum of ash. It shall not contain any foreign matter.

#### SELF-RAISING FLOUR.

(2) Self-raising flour is flour to which the ingredients of baking powder have been added. It shall liberate not less than forty-five grains weight of carbon dioxide per pound when moistened and heated, and it shall contain not more than seven grains weight of sulphates, calculated as calcium sulphate, per pound.

#### BREAD.

(3) Bread is the porous substance obtained by moistening and kneading flour, with provision for the mechanical separation of the dough by air or carbonic acid gas, and properly baked. It shall contain not more than forty-five parts per centum of water in any part of the loaf; it shall yield not more than two parts per centum of total ash, nor more than two-tenths of one part per centum of ash insoluble in acid. It shall not contain any foreign mineral substance except salt (sodium chloride); and ten grammes of the crumb taken from the centre of the loaf shall not contain more acid than is required for the neutralisation of two cubic centimetres of decinormal solution of sodium hydroxide.

# BROWN, BARLEY, AND RYE BREAD.

(4) Brown Bread (varieties), and bread made from other than wheat grain, is the porous substance obtained by the moistening, kneading, panification, and baking of the meal obtained by grinding sound clean grain. It may contain malt extract.

#### OATMEAL.

(5) Oatmeal is the meal produced by grinding oats (Avena sativa) after removal of the husk. It shall contain not less than five parts per centum of fats or of ethereal extract; and it shall contain not more than two and five-tenths parts per centum of meal derived from other grain than oats.

#### RICE.

(6) Rice is the hulled grain of Oryza sativa.

# POLISHED RICE.

(7) Polished rice is rice polished with or without talc. It may contain glucose, not more than five-tenths of one part per centum of talc, and not more than a trace of harmless colouring matter. It shall not contain any other foreign substance.

# RICE FLOUR OR GROUND RICE.

(8) Rice flour, or ground rice, is the meal obtained by grinding husked rice. It shall yield not more than one and five-tenths parts per centum of ash. It shall not contain any foreign substance.

# MAIZE MEAL.

(9) Maize meal is the meal obtained by grinding maize. It shall contain not less than one and one-tenth parts per centum of nitrogen, and shall yield not more than one and sixtenths parts per centum of ash. MIXED MEALS.

(10) There shall be written on every package which contains a mixture of meals of

diverse origin the words **WIXED WEALS** in bold-faced sans-serif capital letters of not less size than twenty-four points face measurement, in such colours as to afford a distinct colour contrast to the ground. The said words shall constitute the first line of the label, and no other word shall appear on the same line. There shall also be written in the label in similar letters a statement of the kinds and approximate proportions of the meals of which the mixture is composed, in the following form :—

# THIS PACKAGE CONTAINS

[here insert the names of the several meals, and a statement of the approximate proportion of each of them contained in the mixture].

CORN FLOUR.

(11) Corn flour is the starch powder derived from any variety of corn or grain. It shall yield not more than one and six-tenths parts per centum of ash.

# 14.—CREAM OF TARTAR.

Cream of tartar shall contain not less than ninety-five parts per centum of acid tartrates, calculated as potassium acid tartrate ( $KHC_4H_4O_6$ ); and not more than two parts per centum of sulphates, calculated as calcium sulphate (CaSO<sub>4</sub>).

# 15.—BAKING POWDER.

(1) Baking powder is a salt, or a mixture of salts, with or without a farinaceous diluent substance, which evolves carbon dioxide on being moistened and heated, and which may be used in the preparation of articles of food as a chemical leaven. It shall contain not more than one and five-tenths parts per centum of sulphates, calculated as calcium sulphate; it shall yield not less than ten parts per centum by weight of carbon dioxide; and it shall not contain any alum.

## Labelling.

(2) The word "egg" and expressions or devices which imply or suggest the presence of egg, or the equivalent of egg, shall not be written on or attached to any package which contains baking powder.

# 16.—CUSTARD POWDER.

(1) Custard powder is a powder prepared from the starch of wholesome grain, with or without harmless colouring or [and] flavouring matter.

# Labelling.

(2) The word "egg," and expressions or devices which imply or suggest the presence of egg or the equivalent of egg, shall not be written on or attached to any package which contains custard powder.

# 17.—INFANTS' FOOD.

(1) Infants' food is any food described or sold as an article of food suitable for infants. It shall not contain any woody fibre, nor any mineral substance which is insoluble in acid, nor any preservative substance.

# Labelling.

(2) In the case of any such food which, when prepared as directed by any accompanying statement or label,—

- (a) Does not conform approximately in proportional composition to human milk, the principal label attached to every package of such food shall contain the words,
   "This food is ordinarily unsuitable for infants under the age of six months, and should not be given to such infants except under medical direction."
- (b) Contains starch in a proportion not exceeding one part per centum, but otherwise conforms approximately in proportional composition to human milk, the principal label attached to every package of such food shall contain the words, "This food should not be given to infants under the age of one month, except under medical direction."

The words inserted in the principal label in accordance with this regulation shall form the first line of such label, and be written in bold-faced sans-serif capital types of not less size than six points face measurement.

## 17a.-INVALIDS' FOOD.

(1) Invalids' food is any food described or sold as an article of food suitable for invalids. It shall be composed of food substances modified, prepared, or compounded, so as to possess special nutritive and assimilative properties which render it specially suitable for use as food by invalids.

(2) Invalids' foods shall not contain any preservative or other foreign substance.

#### Labelling.

(3) There shall be written in the label attached to any package containing any article of food described as or purporting to be invalids' food, a statement of the ingredients contained in it on which the claim of special suitability for invalids is based.

# 18.-MALT, MALT EXTRACT, ETC.

# MALT.

(1) Malt is the seed of barley or of some other cereal designated on the label, which has been caused to germinate, and which has been subsequently dried.

#### MALT EXTRACT.

(2) Malt extract is the substance obtained by evaporating an aqueous extract of malt at a temperature not exceeding  $55^{\circ}$  C. It shall contain not less than seventy parts per centum of the total solids derived wholly from malt. Its diastasic power shall be such that one hundred grains of the extract will in thirty minutes, at a temperature of  $40^{\circ}$  C., convert two hundred and fifty grains of pure anhydrous potato starch into an equivalent amount of maltose, as estimated by the Harrison-Gair method.

# BAKERS' OR "COMMERCIAL" MALT EXTRACT, OR BAKERS' MALTOSE.

(3) Bakers' or "commercial" malt extract, or bakers' maltose, shall contain not less than seventy parts per centum of solids wholly derived from malt.

# LIQUID MALT EXTRACT.

(4) Liquid malt extract shall contain not less than fifty parts per centum of solids wholly derived from malt. It shall possess diastasic power equal to that of malt extract.

# MALT EXTRACT AND COD LIVER OIL.

(5) Malt extract and cod-liver oil is an emulsion composed of malt extract and codliver oil: Provided that the proportion of cod-liver oil shall be not less than fifteen parts per centum by weight. The proportions of the ingredients present shall be declared in the following form in bold-faced sans-serif capital letters of not less than six points face measurement, CONTAINING NOT LESS THAN [here insert the number of parts per centum.] PARTS PER CENT. BY WEIGHT OF COD-LIVER OIL.

#### 19.-MEAT, FROZEN AND MANUFACTURED MEAT, ETC.

#### MEAT.

(1) Meat is the edible part of any mammal, fish, fowl, crustacean, mollusc, or other animal in good health and condition at the time of slaughter, generally used as food, properly dressed. If it bears a name descriptive of its kind, composition, or origin, it shall correspond thereto.

#### FRESH AND CHILLED MEAT.

(2) Fresh or chilled meat is meat which has been kept at any temperature above its freezing point.

## FROZEN MEAT.

(3) Frozen or refrigerated meat is meat which has been reduced to a temperature which is below its freezing point.

# PICKLED AND SMOKED MEAT.

(4) Salted, pickled, or corned and smoked meat is meat prepared with salt, saltpetre (potassium or sodium nitrate), sugar, vinegar, spices, or smoke, singly or in combination.

#### MANUFACTURED MEATS.

(5) Manufactured meats are meats simple or mixed, whole, minced, or comminuted, cooked or uncooked, in bulk or in package, with or without the addition of salt, saltpetre (potassium or sodium nitrate), sugar, vinegar, spices, herbs, smoke, edible oils, or rendered meat fat, singly or in combination.

#### Labelling.

(6) There shall be written in the label attached to every package which contains manufactured meat or meats a statement of the name or names of the contained meats in bold-faced sans-serif capital letters of not less than six points face measurement.

#### Prohibition.

(7) Saltpetre (potassium or sodium nitrate) shall not be mixed with salted, pickled, or corned, smoked, or manufactured meat in any larger proportion than fourteen grains per pound, calculated as  $\text{KNO}_3$ .

# DRIPPING.

(8) Dripping is clean fat rendered from meat. It shall not contain any foreign substance except salt (sodium chloride). It shall be free from rancidity, and shall contain not more than one part per centum of foreign matter.

#### LARD.

(9) Lard is the clean fat rendered from the meat of the hog. It shall be free from rancidity. It shall contain not more than one part per centum of substance other than hog fat necessarily incorporated with it in the course of rendering, and not more than one part per centum of water. It shall not contain any foreign substance.

#### MINCED MEAT, SAUSAGE MEAT, AND SAVELOY SAUSAGE MEAT.

(10) Minced meat, sausage meat, or saveloy sausage meat, is chopped or comminuted meat, with or without salt, sugar, spices, herbs, saltpetre (potassium or sodium nitrate), and wholesome farinaceous substance. It shall contain not less than seventy-five parts per centum of meat of the kind or kinds designated in the label attached to the outside of the package in which they are contained, not more than six parts per centum of starch, nor more than fourteen grains of saltpetre (potassium or sodium nitrate calculated as  $KNO_3$ ) to the pound.

Provided that if minced meat, sausage meat, or saveloy sausage meat be sold enclosed in a skin of animal origin, the said skin shall be deemed to be an integral portion of the said meat.

# Permit ed Colouring Matter.

(11) The colouring of the skins aforesaid with Bismarck brown or with roseine, is hereby permitted without declaration.

#### Preservative.

(12) (a) The addition to mince-meat, and sausage meat, or saveloy sausage meat, of the preservative substance or of a preparation of the preservative substance, sulphur dioxide (or sulphites calculated as sulphur dioxide) in proportion not exceeding three and five-tenths grains to the pound is hereby permitted.

(b) The addition to cooked, smoked, or dried sausage meat, brawn, potted meat, and cooked pressed meat, of the preservative substance, or of a preparation of the preservative substance, sulphur dioxide (or sulphites calculated as sulphur dioxide) in proportion not exceeding one and eight-tenths grains to the pound, is hereby permitted.

# MEAT EXTRACT, MEAT ESSENCE, OR MEAT JUICE.

(13) Meat extract, meat essence or meat juice, is the product obtained from meat by extraction, expression, or concentration. It shall contain the protein of flesh, but no extract of yeast or other foreign substance, except salt and condiments, and, in the case of meat juice, glycerine, provided that the presence and amount per centum of glycerine be declared.

#### Labelling.

(14) In the label attached to every package which contains meat extract, meat essence, or meat juice, there shall be written in bold-faced sans-serif capital letters of not less than six points face measurement the name or names of the kind or kinds of meat from which its contents have been prepared.

# MEAT PASTE.

(15) Meat paste is a paste prepared with meat, farinaceous material and other wholesome food and flavouring substances.

# Labelling.

#### 20.-VEGETABLES.

(1) Vegetables are the succulent, clean, and sound edible parts of herbaceous plants commonly used for food.

(2) Dried vegetables are the clean, sound products obtained by the desiccation of properly matured and prepared vegetables under conditions such that no harmful substance is absorbed by or mixed with them.

(3) Canned or tinned vegetables are properly matured and prepared fresh vegetables, with or without salt, sterilized by heat, and packed in hermetically sealed containers.

#### 21.—GELATINE.

(1) Gelatine sold for consumption by man is the clean, wholesome product obtained from skin, membranes, bones, and other collagenous bodies. It shall yield not more than three parts per centum of ash. A five per centum aqueous solution shall form a jelly when kept at a temperature of  $65^{\circ}$  F. for two hours. A five per centum aqueous solution prepared with sterilized water at a temperature not exceeding  $90^{\circ}$  F. shall not become alkaline, or emit any unpleasant odour after standing for forty-eight hours in a Petri dish at a temperature of  $80^{\circ}$  F.

#### Preservative.

(2) Gelatine may contain sulphur dioxide (or sulphites calculated as sulphur dioxide) in proportion not exceeding three and five-tenths grains of sulphur dioxide to the pound of dry, marketable gelatine, sold for consumption by man. Declaration of the presence of sulphur dioxide or of sulphites in gelatine sold for consumption by man is not required unless the proportion contained in it exceeds one-half of one grain to the pound.

#### Labelling.

(3) There shall be written in the label attached to every package which contains gelatine sold for consumption by man, a statement in bold-faced sans-serif capital letters, of not less than eight points face measurement, the words FOR FOOD. The said words shall form the first line of the label, and no other words shall appear on the same line.

# 22.-EDIBLE FATS AND OILS, AND SALAD OILS.

# General Standard.

(1) Edible fats and edible oils, or salad oils, are the fats and oils commonly recognised as wholesome foodstuffs. They shall be free from rancidity and decomposition, and from offensive odour and taste. They shall not contain any mineral oil.

#### Labelling.

(2) There shall be written in the label attached to every package which contains any edible fat, or any edible oil, or salad oil, or a mixture of such fats or oils of diverse origin, a statement, in bold-faced sans-serif capital letters of not less than six points face measurement, of the kind or kinds of fats and oils which the package contains.

#### OLIVE OIL.

(3) Olive oil is the oil obtained by expression from the sound mature fruit of the cultivated olive tree (*Olea europea L.*). It shall have a specific gravity of from 0.913 to 0.919 at a temperature of 60° F., a refractive index of from 1.4660 to 1.4720 at a temperature of  $77^{\circ}$  F., a saponification value of from 185 to 196, and an iodine value of from 79 to 90. It shall conform with the general standard for edible fats and oils.

"LUCCA" OIL, "SUBLIME SALAD OIL," AND "VIRGIN OIL."

(4) "Lucca" oil, "sublime salad oil," or "virgin oil" is an oil which conforms with the standard for olive oil and with the general standard for edible fats and oils.

#### Labelling.

(5) No person shall sell any package containing any oil which does not conform with the standard for olive oil and with the general standard for edible fats and oils, on or to which is written or attached the word "olive," or the word "Lucca," or the words "sublime salad," or the word "virgin," or any expression which includes the said words or any of them.

Provided that this paragraph shall not apply to a statement of the kinds of oils contained in a mixture of edible fats and oils required by paragraph (2) of this Regulation.

## 23.—MARGARINE.

(1) The term "margarine" includes every preparation of edible fat or oil which is intended to be, or which may be used in place of butter, and which contains any fat other than milk fat.

(2) No person shall sell margarine unless (a) it is mixed with not less than one part of potato-starch or "Queensland arrowroot" (Canna edulis) per one thousand parts of margarine; (b) it conforms with the general standard for edible fats and oils; (c) it does not contain more than sixteen parts per centum of water; (d) it does not contain any other substance except colouring matter, salt (sodium chloride) and preservative.

No person shall have in his possession, for sale, margarine in lumps of two pounds weight or under unless the same be made up in cube form.

# Preservative.

(3) The preservative substance boric acid, or boron compounds calculated as boric acid, may be added to margarine in proportion not exceeding three-tenths of one part of boric acid per centum.

# Labelling.

(4) There shall be written in the label attached to every package which contains margarine, in **bold-faced** sans-serif capital letters of not less than thirty points face measurement,

the word

# -

There shall be conspicuously attached to every vessel used to hold margarine for consumption on the premises by customers, in any place where food is sold, the word MARGARINE written in black bold-faced sans-serif capital letters of not less than eighteen points face measurement.

The words "butter," or "butterine," and expressions which include or resemble the said words, shall not be written in the statement or label written on or attached to any package which contains margarine, nor on any vessel used as aforesaid.

# 24.-MILK AND MILK PRODUCTS.

(1) Milk shall be the normal, clean, and fresh secretion obtained by completely emptying the udder of the healthy cow properly fed and kept, excluding that got during thirty days immediately before, and five days immediately following on parturition. It shall contain not less than eight and five-tenths parts per centum of milk solids not fat, and not less than three and two-tenths parts per centum of milk-fat and not less than eleven and seven-tenths parts per centum of total solids.

#### CREAM.

(2) Cream is that portion of milk in which, either through rest or mechanical separation, the greater part of the milk-fat has become concentrated. It shall not contain any foreign substance. All cream shall be sold under one or other of the following denominations :-

- Double Cream shall mean cream containing not less than thirty-five parts per centum of milk fat.
- Single Cream shall mean cream containing not less than twenty-five parts per centum of milk fat.

#### Preservative.

(3) The preservative substance or a preparation of the preservative substance boric acid may be added to fresh unster lised cream only, in proportion not exceeding three-tenths of one part of boric acid per centum.

# Labelling.

(4) There shall be written in the label attached to every package which contains cream the words **DOUBLE CREAM** or **SINGLE CREAM** as the case may be, together with the words **CONTAINING** [here insert the number of parts per centum] **PARTS PERCENT. OF MILK FAT** in bo d-faced sans-serif capital letters of not less than twelve points face measurement.

# SKIM OR SEPARATED MILK.

(5) Skim or separated milk shall contain not less than eight and eight-tenths parts per centum of milk solids not fat.

### Condensed or Concentrated Milk.

(6) Condensed or concentrated milk is milk condensed or concentrated by the evaporation of a portion of its water content.

# UNSWEETENED CONDENSED MILK.

(7) Unsweetened condensed milk is milk which has been condensed by the evaporation of a portion of its water content, and sterilised by heat. It shall contain not less than twenty-eight parts per centum of total milk solids, of which not less than eight and fivetenths parts per centum are milk fat. It shall not contain any foreign substance.

#### SWEETENED CONDENSED MILK.

(8) Sweetened condensed milk is milk which has been condensed by the evaporation of a portion of its water content, and to which cane sugar has been added. It shall contain not less than thirty-one parts per centum of total milk solids, of which not less than nine parts per centum are milk fat. It shall not contain any foreign substance except cane sugar.

# SWEETENED CONDENSED SKIM OR SEPARATED MILK.

(9) Sweetened condensed skim or separated milk is skimmed or separated milk which has been condensed by the evaporation of a portion of its water content, and to which cane sugar has been added. It shall contain not less than twenty-six and five-tenths parts per centum of milk solids not fat. It shall not contain any foreign substance except cane sugar.

# UNSWEETENED CONDENSED SKIM OR SEPARATED MILK.

(10) Unsweetened condensed skim or separated milk is skimmed or separated milk which has been condensed by the evaporation of a portion of its water content, and sterilised by heat. It shall contain not less than twenty-six and five-tenths parts per centum of milk solids not fat.

# Labelling.

(10A) There shall be written in the label attached to every package which contains any sweetened or unsweetened condensed skim or separated milk the words **UNFIT FOR INFANTS** in bold-faced sans-serif capital letters of not less than twelve points face measurement. The said words shall be the first words of the label, and no other words shall be written on the same line or lines. These words shall be followed by the following statement in bold-faced sans-serif capital letters of not less than eight points face measurement **FIT FOR CULINARY AND MANUFACTURING PURPOSES ONLY**. Additionally, there shall be written across the face of the whole of the label, in a diagonal line, the words in such colours as to afford a distinct colour contrast to the ground



in bold-faced sans-serif capital letters of not less than forty-eight points face measurement.

# CONCENTRATED MILK.

(11) Concentrated milk is milk which has been concentrated by the evaporation of a portion of its water content. It shall contain not less than thirty-seven parts per centum of total milk solids, of which not less than ten parts per centum are milk fat.

#### PRESERVATIVE.

(12) The preservative substance or a preparation of the preservative substance boric acid may be added to concentrated milk, in proportion not exceeding five-tenths of one part of boric acid per centum.

# Labelling.

# "NORMAL MILK."

(13) For the purpose of this Regulation, "Normal Milk" shall be milk containing not less than three and five-tenths parts per centum of milk fat.

There shall be written, in bold-faced sans-serif capital letters of not less than six points face measurement, in the label attached to every package which contains condensed or concentrated milk, directions for making, with its contents, milk of a composition at least equal to that of normal milk, as follows :---

TO MAKE A FLUID NOT BELOW THE COMPOSITION OF 'NORMAL MILK' ADD [here insert the number of parts] PARTS OF WATER BY VOLUME TO ONE PART BY VOLUME OF THIS MILK."

# 24a.—DRIED MILK.

(1) Dried milk is milk from which the water has been removed by a process of heating, and without the addition of any foreign substance.

# 24b.-DRIED SKIM MILK OR SEPARATED MILK.

Dried skim milk or dried separated milk is skim milk or separated milk from which the water has been removed by a process of heating, and without the addition of any foreign substance. It shall contain not more than ten parts per centum of moisture. When it is dissolved in or treated with water in the proportion set out in any label accompanying it, the resulting liquid shall contain not less than eight and eight-tenths parts per centum of milk solids not fat.

Labelling.

There shall be written in the label attached to every package which contains any dried skim milk or dried separated milk the words **UNFIT FOR INFANTS** in boldfaced sans-serif capital letters of not less than twelve points face measurement. They shall occupy one line wholly, and be followed by the words in bold-faced sans-serif capital letters of not less than eight points face measurement **FIT FOR CULINARY AND MANU-FACTURING PURPOSES ONLY.** Additionally, there shall be written across the face of the label, in a diagonal line, the words in such colours as to afford a distinct colour contrast to the ground



in bold-faced sans-serif capital letters of not less than forty-eight points face measurement.

# 24c.—LABELLING OF VESSELS CONTAINING SKIM OR SEPARATED MILK.

(1) No person shall carry for sale in any can, vessel, or measure, any skim milk or separated milk, unless the said can, vessel, or measure is durably and conspicuously marked on the outside with the words



The said words shall be conspicuously displayed on the side, shoulder, or neck of the can, vessel, or measure, in **bold-faced** sans-serif capital letters of not less than seventy-two points face measurement.

(2) Every person who sells skim or separated milk shall, with every quantity delivered to a customer, deliver also to the person receiving it a label printed in bold-faced sans-serif capital letters of not less than forty-eight points face measurement, stating



# 25.—BUTTER.

(1) Butter is the clean, non-rancid, fatty substance obtained by churning milk or cream. It shall contain not less than eighty-two parts per centum of milk fat; it shall contain not more than sixteen parts per centum of water, nor more than four parts per centum of salt; it shall not be mixed with any foreign fat or oil, and it shall not contain any foreign substance except salt (sodium chloride), harmless colouring matter, and preservative.

## RENOVATED, MILLED, OR PROCESS BUTTER.

(2) Renovated, milled, or process butter is the product obtained by re-working butter without the addition of any substance except milk, cream, water, and salt. It shall conform with the standard for butter.

## Preservative.

(3) The preservative substance or a preparation of the preservative substance, boric acid, or boron compounds calculated as boric acid, may be mixed with butter and with renovated, milled, or process butter in proportion not exceeding five-tenths parts of boric acid per centum.

# Labelling.

(4) There shall be attached to every package which contains renovated, milled, or process butter, a statement or label in bold-faced sans-serif capital letters of not less than thirty points face measurement, printed in such colours as to afford a distinct colour contrast to the ground, the words—



#### 26.—CHEESE.

#### CHEESE.

(1) Cheese is the solid or semi-solid product obtained by coagulating milk with rennet or acid, with or without the addition of ripening ferments, seasonings, salt (sodium chloride), and harmless vegetable colouring matter. It shall contain not less than thirty parts per centum of milk fat in its water-free substance, and it shall not contain any foreign fat.

# SKIM MILK CHEESE.

(2) Skim milk cheese is cheese made from milk from which part of its fat has been removed. It shall contain not less than ten parts per centum of milk fat in its water-free substance.

#### Labelling.

(3) There shall be attached to every package which contains skim-milk cheese a statement or label in bold-faced sans-serif capital letters of not less than eighteen points face measurement, printed in such colours as to afford a distinct colour contrast to the ground, the words **SKIM-MILK CHEESE**.

(4) There shall be conspicuously attached to every vessel used to hold skim-milk cheese for consumption on the premises by customers in any place where food is sold, the words **SKIM-MILK CHEESE** written in bold-faced sans-serif capital letters of not less than eighteen points face measurement.

#### FULL MILK CHEESE.

(5 Full m lk cheese is cheese made from milk. It shal contain not less than fifty parts per centum of milk fat in its water-free substance.

# CREAM CHEESE.

(6) Cream cheese is cheese made from milk and cream. It shall contain not less than sixty parts per centum of milk fat in its water-free substance.

## 27.—TEA.

(1) Tea is the leaves and leaf-buds of species of *Thea* prepared by fermenting or drying, and firing. It shall not contain any exhausted or partly-exhausted leaves, nor any foreign matter, and it shall not be inferior in composition or in quality to the standard fixed by the Minister for Trade and Customs under the provisions of the Commonwealth Customs Act, and for the time being in force.

#### TEA DUST.

(2) Tea dust and tea siftings or fannnigs are respectively the dust and the siftings and fannings of tea which conforms with the general standard for tea. It shall yield not more than five parts per centum of ash insoluble in water.

#### Labelling.

(3) When tea is contained in a package on or attached to which is a statement or label describing the tea as the product of a particular country or district, such tea shall be the product of that country or district.

# 27a.—COFFEE.

(1) Coffee is the seed of *Coffea Arabica* or *Coffea Liberica*, roasted and ground or otherwise prepared in a form suitable for making an infusion or a decoction.

# GROUND COFFEE.

(2) Ground coffee shall contain not less than ten parts per centum of fat, not more than one part per centum of saccharine matter, and shall yield not more than six parts per centum of ash (of which the proportion soluble in water shall be not less than seventy-five parts per centum). It shall not contain any foreign substance.

#### CHICORY.

(3) Chicory is the dried and roasted root of Cichorium intybus.

# COFFEE AND CHICORY.

(4) Coffee and chicory is a m xture of ground coffee and ground chicory. It shall contain not less than fifty parts per centum of coffee. It shall not contain any foreign substance.

# Labelling.

(5) There shall be written in the label attached to every package which contains coffee mixed with chicory the words "Coffee and Chicory" in larger letters than those of any other word on the label, immediately followed by a statement of the percentage proportion in which the ingredients of the mixture are present, written in bold-faced sans-serif capital letters of not less than twelve points face measurement, in the following form :—

# CONTAINING NOT LESS THAN [here insert the number of parts per centum] PARTS PER CENT. OF COFFEE.

# 27b.—COFFEE ESSENCE OR COFFEE EXTRACT, OR COFFEE AND CHICORY ESSENCE OR EXTRACT.

(6) Coffee essence or coffee extract, or coffee and chicory essence or extract, is an extract of coffee, or an extract of coffee and chicory: It shall contain not less than five-tenths of one part per centum of caffeine.

# 27c.-COCOA.

#### General Standard for Cocoa and Cocoa Paste.

(1) Cocoa beans are the seeds of *Theobroma cacao*, L; cocoa nibs, or cracked cocoa, is the roasted, broken cocoa bean freed from its shell or husk, with or without the germ.

(2) Cocoa paste, cocoa mass, or cocoa slab is the solid or semi-solid mass produced by grinding cocoa nibs. It shall contain not less than forty-five parts per centum of cocoa fat. The fat-free residue of cocoa paste shall contain not more than twenty-two parts per centum of the starch natural to cocoa; not more than six and one-third parts per centum of crude fibre; not more than eight parts per centum of total ash; not more than five and five-tenths parts per centum of ash insoluble in water; and not more than four-tenths of one part per centum of ferric oxide.

# COCOA OR COCOA POWDER.

(3) Cocoa, or powdered cocoa, is powdered cocoa paste, deprived or not of a portion of its fat. Its fat-free residue shall conform with the general standard for cocoa.

# SOLUBLE COCOA OR COCOA ESSENCE.

(4) Soluble cocoa, or cocoa essence, is the product obtained by treating cocoa paste, deprived or not of a portion of its fat, with alkali or alkaline salt. It shall contain not more than three parts per centum of added alkali or alkaline salt est mated as potassium carbonate, and its fat and alkali-free residue shall conform with the general standard for cocoa.

# PREPARED COCOA.

(5) Prepared, compounded, homœopathic, or sweetened cocca, is cocca or soluble cocca mixed with other wholesome foodstuffs. It shall contain not less than twenty parts per centum of fat-free cocca, and its fat-free cocca content shall conform with the general standard for cocca.

#### Labelling.

(6) There shall be written in the principal label attached to every package which contains prepared, compounded, homœopathic, or sweetened cocoa, or cocoa mixed with other wholesome foodstuffs, in bold-faced sans-serif capital letters of not less than eight points face measurement, a statement in the following form :—

# CONTAINING NOT LESS THAN [here insert the number of parts per centum] PARTS PER CENT. OF COCOA.

#### CHOCOLATE.

(7) Chocolate paste, confectioners' chocolate, chocolate coatings and chocolate powder are cocoa paste or soluble cocoa mixed with sugar, with or without addition or subtraction of cocoa fat, and with or without spices or harmless flavourings. They shall respectively contain not less than sixteen parts per centum of fat-free cocoa, and their sugar-,fat-, and spice-free residue shall conform with the general standard for cocoa.

# Permitted Addition.

(8) Declaration of the presence of harmless flavourings in cocoa, chocolate, and preparations of cocoa and chocolate is not required.

#### Prohibition.

(9) The addition of cocoa husks, any weighting substance, paraffin or foreign fat to cocoa or to any preparation of cocoa, is hereby prohibited

# 28.—SPICES, MIXED SPICES, AND CONDIMENTS.

#### SPICES.

(1) Spices are the sound, aromatic, vegetable substances commonly used as condiments, in their natural condition, without any reduction or extraction of their natural oils.

# MIXED SPICE.

(2) Mixed spice is a mixture of two or more of the sound, aromatic, vegetable substances commonly used as condiments, in their natural condition, without any reduction or extraction of their natural oils, ground and mixed. It shall not contain any added substance.

# CINNAMON.

(1) Cinnamon is the dried bark of *Cinnamonum Zeylanicum*, from which the outer layers may or may not have been removed.

(2) Powdered cinnamon shall not contain any cassia nor any other foreign vegetable or mineral substance.

#### CASSIA AND CASSIA BUDS.

(3) Cassia and cassia buds are respectively the dried bark and the dried immature fruit of *Cinnamomum cassia*.

#### CLOVES.

(4) Cloves are the dried flower-buds of *Eugenia caryophyllata*. They shall not contain any exhausted or partly-exhausted cloves, nor any foreign vegetable or mineral substance, nor more than five parts per centum by weight of clove-stems.

# GINGER AND GROUND GINGER.

(5) Ginger is the washed and dried, or the decorticated and dried, rhizome of *Zingiber* officinale. It shall not contain any exhausted or partly exhausted ginger, nor any foreign vegetable or mineral substance.

(6) Ground ginger shall not contain any exhausted or partly-exhausted ginger, nor any foreign vegetable or mineral substance.

# MACE AND NUTMEG.

(7) Mace is the dried arillus of *Myristica fragrans*. It shall not contain the arillus of any other variety of *Myristica*, including *M. malabarica* or *fatua* (Bombay mace), and *M. argentea* (wild mace).

- (8) Nutmeg is the dried seed of M. fragrans deprived of its testa.
- (9) Ground nutmeg shall not contain any foreign substance.

#### BLACK PEPPER.

(10) Black pepper is the dried immature berry of Piper nigrum, L. It shall contain not less than six parts per centum of extract soluble in ether, not more than seven parts per centum of total ash, and not less than eight parts per centum of extractive matter soluble in ethylic alcohol.

# WHITE PEPPER.

(11) White pepper is the dried mature berry of *Piper nigrum*, L, from which the outer coating has been removed. It shall contain not less than six parts per centum of extract soluble in ether, not more than three and five-tenths parts per centum of ash, and not less than seven parts per centum of extractive matter soluble in ethylic alcohol.

#### GROUND MIXED PEPPER.

(12) Ground mixed pepper is ground white and black pepper. The proportion of ground black pepper shall not exceed fifty parts per centum, by weight, of the whole. It shall not contain any foreign substance.

# CAYENNE PEPPER.

(13) Cayenne pepper or cayenne is the dried fruit of species of *Capsicum*, powdered or ground. It shall contain not less than fifteen parts per centum of ether extractives, and and shall yield not more than six parts per centum of total ash. It shall not contain any foreign substance.

## Prohibition.

The addition of starch or colouring matter, or any other foreign substance, to black pepper or white pepper or cayenne pepper or cayenne is hereby prohibited.

#### MUSTARD.

(14) Mustard is the ground seed of *Sinapis alba*, *Brassica juncea*, or *Brassica nigra*. One hundred parts shall yield not more than eight parts of total ash. It shall not contain more than two and five-tenths parts per centum of foreign starch, nor any other foreign substance.

## MUSTARD PASTES.

(15) Mustard pastes are mustard mixed with water, salt (sodium chloride), verjuice, white wine, vinegar, tartaric or citric acid, sugar, turmeric, and spices, singly or in combination. They shall not contain the flour of any foreign seed, dextrine, or foreign mineral matter, except salt (sodium chloride).

# 29.-SAUCES.

#### General Standard for Sauces.

(1) Sauces are liquid or semi-liquid mixtures of wholesome foodstuffs and condiments, with or without harmless colouring and flavouring substances.

# TOMATO SAUCE.

(2) Tomato sauce is sauce prepared from sound and ripe tomatoes. It shall conform with the general standard for sauces, and it shall not contain any foreign vegetable substance, except onions, garlic, spices or condiments.

# TOMATO CHUTNEY SAUCE.

(3) Tomato chutney sauce is sauce prepared from sound and ripe tomatoes and apples. The proportion of apples shall not exceed forty parts per centum ; the sauce shall conform with the general standard for sauces, and shall contain no other foreign vegetable substance except onions, garlic, spices or condiments.

# Preservative.

(4) There may be added to tomato sauce and tomato chutney sauce, salicylic acid in proportion not exceeding two grains to the pound.

# 30.-VINEGAR.

## General Standard for Vinegar.

(1) Vinegar is the liquid derived from alcoholic and acetous fermentations with or without harmless flavouring substances and caramel. It shall contain not less than four grammes of acetic acid in one hundred cubic centimetres; it shall not contain any sulphuric or other mineral acids or copper; nor shall it contain any foreign substance or colouring matter except caramel.

#### Varieties.

(2) FERMENTED VINEGAR is vinegar made without any process of distillation from one or more of the following :---Malt, grain, wine, cider, apples, honey, glucose, sugar, mol-asses.

# Labelling.

(3) There shall be attached to every package which contains fermented vinegar a label in which shall be written in bold-faced sans-serif capital letters of not less than twelve points face measurement the words **FERMENTED VINEGAR MADE FROM** [here insert the name or names of the material from which the fermented vinegar is manufactured].

(4) SPIRIT VINEGAR is vinegar made from alcohol when the alcohol has undergone a process of distillation prior to the acetous fermentation.

# Labelling.

(5) There shall be attached to every package containing spirit vinegar a label in which shall be written in bold-faced sans-serif capital letters of not less than twelve points face measurement the name of the source of the spirit from which the spirit vinegar is made, together with the words "spirit vinegar," thus :--WINE SPIRIT VINEGAR or SPIRIT VINEGAR MADE FROM WINE.

(6) DISTILLED VINEGAR is vinegar made by alcoholic and acetous fermentations followed by a process of distillation.

# Labelling.

(7) There shall be attached to every package containing distilled vinegar a label in which shall be written in bold-faced sans-serif capital letters of not less than twelve points face measurement the words **DISTILLED VINEGAR**.

(8.) BLENDED VINEGAR is vinegar composed of fermented vinegar mixed with spirit vinegar or distilled vinegar.

#### Labelling.

(9) There shall be attached to every package containing blended vinegar a label in which shall be written in bold-faced sans-serif capital letters of not less than twelve points face measurement the words **BLENDED VINEGAR** and the names of the materials from which the blended vinegar is manufactured.

#### 30a.—IMITATION VINEGAR.

(1) Mixtures sold for the purpose of being used, or which may be used, as vinegar, shall be dilutions of pure acetic acid in water with or without harmless flavouring substances and caramel; they shall contain not less than four grammes of acetic acid in one hundred cubic centimetres; they shall not contain any vinegar, sulphuric or other mineral acid, lead, copper, or colouring matter except caramel, nor any foreign substance.

# Labelling.

(2) There shall be written in the principal label attached to every package which contains a mixture sold for the purpose of being used, or which may be used, as vinegar, the words **INITATION VINEGAR** in bold-faced sans-serif capital letters of not less than twenty-four points face measurement.

#### 30b.-ESSENCE OF IMITATION VINEGAR.

Mixtures sold for the purpose of being used, or which may be used, for making imitation vinegar by dilution with water shall be mixtures of acetic acid with water and harmless flavouring substances and coloured or not with caramel. They shall contain no sulphuric or other mineral acid, and no lead or copper.

#### Labelling.

There shall be written in the label attached to every package which contains a mixture sold for the purpose of making imitation vinegar the words **ESSENCE OF IMITATION VINEGAR** in bold-faced sans-serif capital letters of not less than twelve points face measurement. The label shall bear directions for dilution with water so that the resultant fluid shall contain not less than four parts per centum of acetic acid.

# 31.—PICKLES.

(1) Pickles are sound vegetables or sound fruits preserved in salt, vinegar, acetic acid or lactic acid, with or without spices, condiments, or sugar, and with or without harmless colouring or flavouring substances. They shall not contain any foreign mineral substance, except salt (sodium chloride), nor more than fourteen grains of saltpetre (potassium sodium nitrates calculated as  $KNO_3$ ) to the pound.

(2) Pickles which have been made with bleached vegetables shall contain not more than two grains of sulphurous acid, or of its compounds, derived from the bleaching process.

# 32.—SUGAR AND STARCH SUGAR (GLUCOSE).

# Sugar.

(1) Sugar is the product chemically known as sucrose or saccharose.

(2) Granulated, loaf, cut, milled, and powdered sugar shall contain at least ninetynine and five-tenths parts of saccharose in every hundred parts.

## Starch Sugar (Glucose).

(3) Starch sugar is the product obtained by hydrolyzing starch or a wholesome starch-containing substance, until the greater part of the starch has been converted into dextrose.

(4) Anhydrous starch sugar shall contain not less than ninety-five parts per centum of dextrose, and shall yield not more than eight-tenths of one part per centum of ash.

(5) Hydrous starch sugar, "70 sugar," or "brewers' sugar" shall contain not less than seventy parts per centum of dextrose, and shall yield not more than eight-tenths of one part per centum of ash; and "Climax" or "Acme" or "80 sugar" shall contain not less than eighty parts per centum of dextrose, and shall yield not more than one and five-tenths parts per centum of ash, (6) Glucose (mixing or confectioners' glucose) shall have a specific gravity of from 1.398 to 1.455 at a temperature of  $37.5^{\circ}$  C., and within these limits shall conform in specific gravity with the specific gravity ascribed to it by the seller; at a specific gravity of 1.398 it shall contain not more than twenty-one parts per centum of water, and at a specific gravity of 1.455 it shall contain not more than fourteen parts per centum of water; it shall yield not more than one part per centum of ash (calculated on the basis of a specific gravity of 1.398), which shall consist chiefly of chlorides and sulphates.

(7) None of the products mentioned in this Regulation shall contain any arsenic or other harmful substance.

#### 33.—HONEY.

Honey is the nectar and saccharine exudations of plants, gathered, modified, and stored by the honey bee. It shall contain not more than twenty-six parts per centum of water, not less than sixty parts per centum of reducing sugars, and it shall not yield more than three-fourths of one part per centum of ash. It shall not contain any added sugar or glucose, artificial sweeten ng substance, added colouring matter, or other foreign substance.

# 34.—CONFECTIONERY.

#### General Standard for Confectionery.

(1) Confectionery is the product made from sugar, confectioners' glucose, or other saccharine substances, with or without the addition of harmless colouring and flavouring substances, and with or without other food substances, such as butter, wholesome edible fats, fresh eggs, milk, chocolate, nuts, and fruits. It shall not contain any paraffin, nor any resin, nor any foreign mineral substance except drugs against which there is no restrictive law or regulation in force, nor shall it contain or enclose any alcoholic liquor or compound.

Provided that nothing in this Regulation contained shall be taken to prohibit the manufacture by confectioners of lozenges and the like which contain a drug concerning which any restrictive law or regulation is in force, for wholesale supply to the order of a registered pharmacist.

#### Labelling.

(2) There shall be written in the label attached to every package which contains confectionery medicated by the addition of any drug named or included in Regulation numbered 71 the word **MEDICATED** in bold-faced sans-serif capital letters of not less than twelve points face measurement.

# 35.—PA STRY.

The word "Pastry" shall nelude pastry, cakes, and biscuits. Pastry is a product of the mixture of two or more of the following substances, selected, combined, and cooked as may be desired :—Various kinds of flour or starch, water, fresh, condensed, concentrated, skim, or separated milk, cream, fresh eggs, butter, edible fats or oils, sugar, honey, or molasses, nuts, almonds, or other oleaginous seeds, sound fruits or preparations of sound fruits, other wholesome food-substances, harmless flavourings. Pastry shall not contain any preservative substance except such as is specifically permitted in prescribed ingredients, nor any artificial sweetening substance, nor mineral oil or mineral fat, alum, or sulphate of copper.

#### 36.—ICE-CREAM AND ICES.

#### ICE CREAM.

(1) Ice-cream is a foodstuff composed of milk and of cream, with sugar, with or without fresh eggs, flavoured with fruit or with the juice or pu p of fruit, or with nuts or with harm-less vegetable flavouring substances or essences, coloured or not with harmless colouring substances, and with or without candied fruits, liqueurs, or spirits, singly or in combination, sterilized by boiling, or pasteurised by being kept at a temperature of not less than  $156^{\circ}$  F. for twenty minutes, or of not less than  $165^{\circ}$  F. for ten minutes, and subsequently frozen. Ice-cream shall contain not less than ten parts per centum of milk fat, present in the form of cream.

(2) The preservative substance or a preparation of the preservative substance boric acid is permitted to be present in ice cream in proportion not exceeding two-tenths to one part of boric acid per centum.

#### ICES.

(3) Ices are preparations of wholesome foodstuffs, with or without addition of harmless vegetable substances or essences or of harmless colouring matter, sterilized by boiling, or pasteurised by being kept at a temperature of not less than  $156^{\circ}$  F. for twenty minutes, or of not less than  $165^{\circ}$  F. for ten minutes, and subsequently frozen.

#### Prohibitions.

(4) The addition of viscogen, gelatine, or other thickening substance to ice-cream is hereby prohibited.

(5) No person shall sell any ice-cream or ices of which the nature or flavour is indicated or declared by the name of any fruit or fruits, flavoured wholly or in part with any substance other than the fruit or fruits named, unless the said name is conjoined with the word "Imitation."

# 37.—FRUIT AND FRUIT PRODUCTS.

#### Preserved Fruit.

(1) Preserved fruit is any sound fruit or fruit substance preserved either by drying or by immersion in fruit juice, or in water, or in syrup, or by treatment with sulphur d'oxide gas. It shall not contain any foreign substance except sugar : Provided that harmless colouring matter be added to raspberries and strawberries.

(2) The presence of not more than seven grains of sulphur dioxide (or sulphites calculated as sulphur dioxide) per pound in dried fruits, unavoidably remaining from the process of bleaching, shall not be deemed to constitute a contravention of this Regulation.

#### Labelling.

(3) There shall be written in a label attached to every package of preserved fruit the name or names of the fruit or fruits contained in the package in bold-faced sans-serif capital letters of not less than eighteen points face measurement; and in the case of dried fruit containing more than two grains of sulphur dioxide per pound, there shall be written in the label immediately following the name of the fruit or fruits the word SULPHURED in bold-faced sans-serif capital letters of not less than eighteen points face measurement.

# JAMS AND CONSERVES.

(4) Jam and conserve are the products obtained by boiling some one kind of sound fruit with sugar. They shall not contain any glucose, except that derived from the cane sugar and the fruit, nor any gelatine, starch, apple pulp (except in the case of apple jam), nor any other added substance except spices and apple juice. Provided that the proportion of added apple juice shall in no case exceed five parts per centum: provided further, that the addition of harmless colouring matter to raspberry jam and to plum jam shall not be deemed to be a contravention of this Regulation.

#### Labelling.

(5) There shall be written in the label attached to every package which contains jam, conserve, or marmalade, in bold-faced sans-serif capital letters of not less than eighteen points face measurement the words JAM, CONSERVE, or MARMALADE, as the case may require.

There shall be also written in the said label in bold-faced sans-serif capital letters of not less than eighteen points face measurement the name of the fruit or fruits from which the contents of the package have been prepared.

# MARMALADE.

(6) Marmalade is the product obtained by boiling sound citrus fruit or fruits with sugar. It shall not contain any added substance except glucose.

# Labelling.

(7) There shall be written in the label attached to every package which contains any marmalade mixed with glucose, the words MIXED WITH GLUCOSE in bold-faced sans-serif capital letters of not less than eighteen points face measurement. The said words shall be the first words of the label, and no other word shall appear on the same line with them.

#### MIXED JAMS.

(8) Mixed jams are the product obtained by boiling two or more varieties of sound fruits with sugar. Mixed jams shall not contain any vegetable substance other than that derived from fruits of the varieties designated on the label, except spices and apple juice. It shall contain not less than fifty parts per centum of the variety of fruit named first in the label. It shall not contain any added glucose, gelatine, starch, or other foreign substance. Provided that the proportion of added apple juice shall in no case exceed five parts per centum.

#### Labelling.

(9) There shall be written in the label attached to every package which contains mixed jam, in bold-faced sans-serif capital letters of not less than eighteen points face measurement, the names of the fruits from which the mixture has been prepared.

#### FRUIT JELLY.

(10) Fruit jelly is a compound prepared from the juice of sound fruit and sugar. It shall not contain any vegetable substance other than that derived from sound fruit of the variety or varieties designated in the label, nor any added glucose, gelatine, starch, or other foreign substance.

#### Labelling.

(11) There shall be written in the label attached to every package which contains any fruit jelly, in bold-faced sans-serif capital letters of not less than eighteen points face measurement, the words **FRUIT JELLY**. There shall also be written in the label, in bold-faced sans-serif capital letters of not less than eighteen points face measurement, the name or names of the variety or varieties of fruits from which the contents have been prepared; and the product of the fruit which is named first shall be present in the contents of the package in larger proportion than the product of any other fruit.

# 38.—FRUIT JELLY CRYSTALS AND JELLY CRYSTALS.

#### FRUIT JELLY CRYSTALS.

(1) Fruit jelly crystals are a confection of gelatine, sugar, and citric or tartaric acid, flavoured with wholesome substances wholly derived from sound fruits, or from other sound vegetable substances, and with or without harmless colouring matter.

#### Labelling.

(2) There shall be written in the label attached to every package which contains fruit jelly crystals, in bold-faced sans-serif capital letters of not less than eight points face measurement, the words FRUIT JELLY CRYSTALS accompanied by the name of the fruit from which the contents of the package have been prepared.

## JELLY CRYSTALS.

(3) Jelly crystals are a confection of gelatine, sugar, and citric or tartaric acid, coloured and flavoured with harmless colouring matters and harmless flavouring substances.

#### Labelling.

(4) There shall be written in the label attached to every package which contains jelly crystals the words JELLY CRYSTALS in bold-faced sans-serif capital letters of not less than eight points face measurement, accompanied by the words ARTIFICIALLY COLOURED AND FLAVOURED, in bold-faced sans-serif capital letters of not less than six points face measurement.

#### 39.—ESSENCES.

# General Standard for Essences.

(1) Essences are solutions of wholesome flavouring substances in ethylic alcohol, or in water, or in both, with or without harmless colouring matter.

# OIL OF LEMON.

(2) Oil of lemon is the volatile oil obtained from the fresh peel of the lemon (*Citrus limonum*, L.). It shall have an optical rotation at  $25^{\circ}$  C. of not less than plus  $59^{\circ}$  in a one hundred millimetres tube, and it shall contain not less than four parts per centum by weight of citral.

#### ESSENCE OF LEMON.

(3) Essence of lemon is the flavouring extract prepared from oil of lemon, or from lemon peel, or from both. It shall contain not less than ten parts per centum by volume of oil of lemon, and it shall conform with the general standard for essences.

# VANILLA.

(4) Vanilla is the dried fruit of *Vanilla planifolia* containing the odoriferous principle or aldehyde known as "Vanillin."

# VANILLA ESSENCE.

(5) Vanilla essence is an alcoholic extract of vanilla. It shall contain in one hundred cubic centimetres the soluble matter from not less than ten grammes of vanilla bean. It shall contain not less than one-tenth of one part per centum of natural vanillin. It shall conform with the general standard for essences, except that it may contain sugar or glycerine.

# VANILLA SUBSTITUTES.

# Labelling.

(6) There shall be written in the label attached to every package containing a substance which consists wholly or in part of a substitute for vanilla or for vanilla essence, in bold-faced sans-serif capital letters of larger size than any other printed matter on the label, the words "Imitation Vanilla," or "Imitation Vanilla Essence," as the case may be.

#### Prohibition.

(7) The word "Vanilla" or words "Vanilla Essence" shall not be written in the statement or label attached to a package containing a substance which consists wholly or in part of a substitute for vanilla or for vanilla essence, unless conjoined with the word "Imitation," in the following form, "Imitation Vanilla," or "Imitation Vanilla Essence," as the case may be.

# 40.—CITRIC AND TARTARIC ACIDS.

Citric and tartaric acids shall contain not more than one-hundredth part of a grain of arsenic (calculated as arsenious oxide), nor more than one-seventh of a grain of lead to the pound.

# 41.—POTABLE WATER.

Potable water is water which conforms with one or more of the following conditions :— (a) That it has been obtained from a source approved in writing for the purpose by the Central Health Authority; (b) That it has been distilled, boiled, filtered, or otherwise rendered sterile by a process which has been approved for the purpose by the Central Health Authority. Provided that potable water shall not be used for the purpose of these Regulations unless it has been so kept between its collection or sterilization as hereinbefore provided, and its sale or manufacture as to preserve it from contamination.

#### 42.—ICE.

Ice is the product obtained by freezing potable water. It shall be made and handled under such conditions as to prevent any contamination.

# 43.—AERATED WATERS.

#### General Standard for Aerated Waters.

(1) Aerated waters are potable water impregnated with carbon dioxide, or with oxygen, or with both, under pressure, with or without admixture of soda, potash, lithia, or the like salts. They shall not contain any lead or other poisonous metal, nor any foreign substance.

# SODA WATER.

(2) Soda water is potable water impregnated with carbon dioxide, or with oxygen, or with both. It shall conform with the general standard for aerated waters.

#### LITHIA, POTASH, AND SELTZER WATERS.

(3) Lithia, potash, and seltzer waters are waters which conform with the general standard for aerated waters. Lithia water and potash water shall contain respectively not less than five grains of lithium carbonate, and not less than fifteen grains of potassium bicarbonate, to the pint. Seltzer water shall contain not less than fifteen grains of sodium chloride, not less than two grains of sodium bicarbonate, not less than four grains of magnesium chloride, and not less than four grains of calcium chloride, to the pint.

#### Labelling.

(4) There shall be written in the label attached to every package containing an aerated water mixed with a salt, or with salts, in bold-faced sans-serif capital letters of not less than six points face measurement, the name of the salt or salts, and the minimum percentage proportion in which each is present.

# 44.-CORDIALS AND SYRUPS.

#### FRUIT CORDIALS AND SYRUPS.

(1) Fruit cordials and syrups shall be composed of the natural juices of sound fruits, potable water, and sugar, with or without added citric or tartaric acid. They shall contain not less than twenty-five parts per centum by weight of sugar. They shall not contain any other flavouring substance than that naturally present in the fruit from which they have been prepared; nor any added substance except glycerine in proportion not exceeding ten parts per centum.

## Labelling.

(2) There shall be written in the label attached to every package which contains fruit cordials or syrups, in bold-faced sans-serif capital letters of not less than six points face measurement, the name or names of the fruit or fruits from which ts contents have been prepared.

# Preservative.

(3) To fruit cordials and syrups which do not contain any glycerine, there may be added sulphur dioxide (or sulphites calculated as sulphur dioxide) or salicylic acid (one, but not both) in proportion not exceeding two grains to the pint.

# 45.-RASPBERRY SYRUP AND RASPBERRY VINEGAR.

RASPBERRY SYRUP.

(1) Raspberry syrup shall contain not less than twenty parts per centum by weight of raspberry juice, not less than twenty-five parts per centum by weight of sugar, and not more than ten parts per centum by weight of glycerine. It may contain harmless colouring matter.

# RASPBERRY VINEGAR.

(2) Raspberry vinegar shall contain not less than twenty parts per centum by weight of raspberry juice, not less than twenty-five parts per centum by weight of sugar, not more than ten parts per centum by weight of glycerine, and not more than two parts per centum of acetic acid. It may contain harmless colouring matter.

#### Preservative.

(3) The preservative substance, sulphur dioxide (or sulphites calculated as sulphur dioxide) in proportion not exceeding three grains, or salicylic acid in proportion not exceeding two grains, to the pint (one, but not both) may be added to raspberry syrup and raspberry vinegar which do not contain any glycerine.

#### 46.—COMPOUN D CORDIALS.

(1) Compound cordials (orange bitters, sarsaparilla, ginger, non-alcoholic bitters, tonic, and like preparations) shall consist of potable water with vegetable extracts or infusions or tinctures, or both, or any combination of varieties of either or of both, and sugar with or without citric or tartaric acid, harmless vegetable flavouring substances, harmless colouring matter, and glycerine.

Provided that the proportion of glycerine shall not exceed ten parts per centum.

#### Labelling.

(2) There shall be written in the label attached to every package which contains a compound cordial, in bold-faced sans-serif capital letters of not less than twelve points face measurement, the words **CONPOUND CORDIAL**. The said words shall be the first words of the label, and no other word shall appear on the same line.

#### Preservative.

(3) To compound cordials which do not contain any glycerine, there may be added sulphur dioxide (or sulphites calculated as sulphur dioxide) or salicylic acid (one, but not both) in proportion not exceeding two grains to the pint.

# 47.-IMITATION CORDIALS AND SYRUPS.

(1) Imitation cordials and syrups shall be composed of potable water with harmless flavouring substances, sugar, and citric or tartaric acid, acetic acid or vinegar, with or without harmless colouring matter, and with or without glycerine. They shall contain not less than twenty-five parts per centum by weight of sugar, and not more than ten parts per centum of glycerine.

# Labelling.

(2) There shall be written in the label attached to every package containing imitation cordial or syrup, in **bold-faced** sans-serif capital letters of not less than eighteen points face measurement, the words

# IMITATION CORDIAL

or

# IMITATION SYRUP

and the name of the flavouring in the following form :---

# SYRUP [here insert the name of the flavour] FLAVOUR.

The said words shall be the first words of the label, and no other word shall appear on the same line or lines.

# Prohibition.

(3) Expressions or devices which indicate or suggest that the contents of any package which contains an imitation cordial or syrup consist wholly or in part of any natural fruit juices shall not be written in any statement or label attached to any such package.

#### Preservative.

(4) To imitation cordials and syrups which contain no glycerine, there may be added sulphur dioxide (or sulphates calculated as sulphur dioxide) or salicylic acid (one, but not both) in proportion not exceeding two grains to the pint.

## 48.—LIME JUICE.

(1) Lime juice is the expressed juice of the sound fruit of *Citrus medica*, variety *acida*. It shall contain not less than six parts per centum of citric acid, naturally present in the fruit from which it has been produced.

# Lime Juice Cordial or Syrup.

(2) Lime juice cordial or syrup shall be composed of lime juice, sugar, and potable water. It shall contain not less than two parts per centum of citric acid naturally present in the fruit. It shall not contain any added substance, except glycerine in proportion not exceeding ten parts per centum.

## Preservative.

(3) To lime juice and lime cordial or syrup which does not contain any glycerine, there may be added sulphur dioxide (or sulphites calculated as sulphur dioxide) or salicylic acid (one, but not both) in proportion not exceeding two grains to the pint.

# 49.—LEMON SQUASH.

(1) Lemon squash is the expressed juice of the sound ripe fruit of *Citrus medica*, var. *Limonum*. It shall not contain any added substance except sugar and preservative.

#### Prohibition.

(2) Lemon squash shall not contain any substance capable of reducing its natural acidity.

# Preservative.

(3) The preservative substance sulphur dioxide (or sulphites calculated as sulphur dioxide) or salicylic acid in proportion not exceeding two grains to the pint (one, but not both), may be added to lemon squash.

# 50.-NON-EXCISABLE FERMENTED DRINKS.

(1) Non-excisable fermented drinks shall be composed of potable water with vegetable extractives or infusions, and sugar, with or without the addition of harmless vegetable flavouring substances, citric or tartaric acid, and harmless colouring matters. They shall not contain more than two parts per centum of proof spirit.

(2) The addition of saccharin to non-excisable fermented drinks, in proportion not exceeding two grains to the gallon, is hereby permitted.

# 51,-SUMMER OR "TEMPERANCE" DRINKS.

(1) Summer or "temperance" drinks, other than lemonade, quinine tonic water, soda water, lithia water, or seltzer water shall be composed of potable water, with or without sugar and harmless flavouring essences, or vegetable extractives or infusions, impregnated with carbon dioxide, under pressure or not, with or without citric and tartaric acids, and with or without harmless colouring matter.

(2) When summer or "temperance drinks" are sold under names which suggest or fmply the presence of fruits, they shall comply with the labelling provisions applicable to iruit cordials or imitation cordials, as the case may be.

# 52.—QUININE TONIC WATERS.

## Labelling.

(1) There shall be written in the label attached to every package which contains any drink, the name or trade description of which includes the word "Quinine," the proportion of quinine therein contained. The proportion of quinine contained in a drink sold under the said name or trade description shall be not less than one-third of a grain to the pint.

# 53.-QUININE TONIC WINE.

(1) Quinine tonic wine is wine containing quinine or a compound of quinine (calculated as quinine) in proportion of not less than five grains per pint and not more than twenty grains per pint.

#### Labelling.

(2) There shall be written in the label attached to every package of quinine tonic wine a statement, in bold-faced sans-serif capital letters of not less than eight points face measurement, of the proportion of quinine contained therein, in the following form :----

THIS QUININE WINE CONTAINS [here insert the number of grains] GRAINS OF QUININE PER PINT. IT DOES NOT CONFORM WITH THE STANDARD FIXED BY THE BRITISH PHARMACOPOEIA.

#### 54.-WINE.

(1) Wine is the product solely of the alcoholic fermentation of the juice or must of grapes.

# Dry Wine.

(2) Dry Wine is the wine produced by complete fermentation of the sugar contained in the juice or must of the grapes from which it is made.

# Sweet Wine.

(3) Sweet Wine is the wine containing sugar derived only from the juice or must of the grapes from which it is made.

#### Sparkling Wine.

(4) Sparkling Wine is the wine which by fermentation of portion of the sugar contents has become surcharged with carbon dioxide, and to which sugar and pure wine spirit may or may not have been added. It shall include Australian and other Champagnes.

## Pure Wine Spirit.

(5) Pure Wine Spirit is the rectified distillate resulting from the distillation solely of wine.

# Allowed Additions.

- I. To the grape juice or must :--
  - (a) Yeast.
  - (b) Calcium sulphate, also sulphur dioxide, as a result of the sulphuring of casks by means of the combustion of arsenic-free sulphur, also sulphites.
  - (c) Tartaric and citric acid.
  - (d) Extractives (ampelosides) of grape vine leaves or flowers.
  - (e) Calcium and ammonium phosphates.
  - (f) Tannin.

II. To wine :---

- (a) Isinglass, gelatine, eggs, casein, albumen (not including blood or milk as such), Spanish clay, kaolin, tannin.
- (b) Sulphur dioxide and preparations of sulphur dioxide.

III. To wine or partly fermented grape juice or must :---

(a) Pure wine spirit (as approved by the Customs) for the purpose of increasing the alcoholic strength to the extent not exceeding twenty-eight per centum of proof spirit in the case of dry wine, or forty parts per centum of proof spirit in the case of sherry, port, and sweet wine.

#### Prohibitions.

Wines sold, or exposed for sale shall not contain :---

- (a) Soluble chlorides in quantity exceeding one gramme per litre (or seventy grains per gallon) calculated as sodium chloride, or
- (b) Soluble sulphates calculated as potassium sulphate in quantity exceeding two grammes per litre (or one hundred and forty grains per gallon) except in the case of wine known as sherry, port, madeira, and malaga, in which case the quantity shall not exceed four grammes per litre (or two hundred and eighty grains per gallon), or
- (c) Sulphur dioxide, and preparations of sulphur dioxide in quantity exceeding seventy milligrammes per litre (or four and nine-tenths grains per gallon) in the free state, or three hundred and fifty milligrammes per litre (or twenty-four and a-half grains per gallon) in the combined state, in each case calculated as sulphur dioxide.

# Prohibited Additions.

Water, sugar (a<sup>ll</sup> kinds of), ethers, essential oils, flavouring substances, alkaloidal substances, compounds of barium, fluorine, magnesium, strontium, bismuth, arsenic, lead, zinc, aluminium, tin, copper, preservative substances (except sulphur dioxide as provided), glycerine, artificial sweetening substances, colouring matters, mineral acids and organic acids (except tartaric and citric acid as provided), are hereby prohibited.

# 55.—CARBONATED WINE.

# Labelling.

There shall be written in the label attached to every package containing sparkling wine to which any carbon dioxide has been added, the word **CARBONATED**, in bold-faced sans-serif capital letters of not less than twelve points face measurement. The said word shall be the first word of the label, and no other word shall be written on the same line.

## 56.—CIDER AND PERRY.

Cider and perry are the products of the alcoholic fermentation of the juice or must of sound apples and pears respectively. They may contain sulphurous acid (calculated as sulphur dioxide,  $S.O_2$ .) in proportion not exceeding two grains to the gallon; but they shall not contain any foreign essence or foreign flavouring substance, or salicylic acid or other preservative.

# 57.-MALT ALE OR MALT BEER.

(1) Malt ale or malt beer containing not less than two per centum of proof spirit is ale or beer brewed from barley malt and hops exclusively.

(2) Ale, beer, porter, or stout containing not less than two per centum of proof spirit shall be produced by the alcoholic fermentation of a mash of malted and other grain and sugar with hops and other harmless vegetable bitters.

(3) Malt ale or malt beer, ale, beer, porter, and stout shall not contain strychnine, cocculus indicus, pieric acid, lead, or other harmful substance.

#### Preservative.

(4) Malt ale or malt beer, ale, beer, porter or stout shall not contain more than three grains per gallon of salicylic acid or alternatively not more than two grains of free sulphur dioxide, or more than five grains of total sulphur dioxide per gallon.

# 58.—SPIRITS.

(1) Brandy is the spirit distilled wholly from grape wine by a pot still or similar process, at a strength not exceeding forty per centum over proof, matured while subject to the control of the Customs by storage in wood for a period of not less than two years.

(2) Blended wine brandy is spirit containing not less than twenty-five per centum of pure grape-wine spirit, which has been separately distilled by a pot still or similar process, at a strength not exceeding forty per centum over proof, the whole matured while subject to the control of the Customs by storage in wood for a period of not less than two years.

(3) Whisky shall be spirit distilled from barley, malt, or other grains (which as regards pure pot still whisky shall be distilled at a strength not exceeding thirty-five per centum over proof) certified to the satisfaction of the Customs to have been matured by storage in wood for a period of not less than two years, and shall be sold under one of the following designations, and conform to the respective standards specified therefor :—

- (a) Pure Pot Still Whisky shall contain at least 45 grammes of Compound Ethers, 3.5 grammes of Furfural, and 180 grammes of Higher Alcohols per 100 litres of Absolute Alcohol, when these ngredients are estimated strictly by the methods laid down in Schedule A, attached to these Regulations. If in any sample more than one of these ingredients shall fall below the above limits, it shall not be considered as a genuine pot still whisky. Moreover, if in any case the Furfural falls below the above limit, it shall not be less in amount than one-eightieth (1/80) of the quantity of Higher Alcohols present; while in other cases the Higher Alcohol shall not be less than forty (40) times the quantity of the Furfural found.
- (b) Blended whisky containing at least seventy-five per centum of pure Pot Still Whisky shall not contain less than 45 grammes of Compound Ethers, 2.6 grammes of Furfural, and 160 grammes of Higher Alcohols per 100 litres of Absolute Alcohol.

- (c) Blended Whisky containing at least fifty per centum of Pure Pot Stil<sup>1</sup> Whisky shall contain not less than 40 grammes of Compound Ethers, 1.75 grammes of Furfural, and 140 grammes of Higher Alcohols per 100 litres of Absolute Alcohol.
- (d) Blended Whisky containing less than fifty per centum of Pure Pot Still Whisky shall be those which fail to comply with any of the above standards.

# Labelling.

(4) Every package containing whisky shall bear upon the face thereof and immediately below the principal label, a coloured label not less than three inches in width, nor less than one and a-half inches in depth, upon which shall be printed the designation of the whisky contained in the package.

The colour of the label and the wording thereon shall be as specified hereunder, the letters to be of not less size than six points face measurement :---

Designation of Whisky and wording to be printed on Label.	Colour of Label.	Colour of Printing.
Pure Pot Still Whisky	Azure Blue	Black
Blended Whisky containing at least seventy-five parts per centum of Pure Pot Still Whisky	Vermillion Red	White
Blended Whisky containing at least fifty parts per centum of Pure Pot Still Whisky	Light Grey	Black
Blended Whisky containing less than fifty parts per centum of Pure Pot Still Whisky	Black	White
	1	

(5) Rum is spirit distilled wholly from sugar, sugar syrup, molasses, or the refuse of sugar cane, by a pot still or similar process, at a strength not exceeding forty-five per centum over proof, matured while subject to the control of the Customs by storage in wood for a period of not less than two years.

(6) Gin is the spirit distilled from barley, malt, grain, or grape wine, which has been redistilled from juniper berries or flavoured with preparations thereof.

#### Allowed Additions.

(7) Spirits may be coloured by means of caramel, and flavoured by means of such flavourings as are permitted by the Customs, and sweetened by means of sugars. The declaration of caramel colouring and of flavouring is not required.

#### Prohibition.

(8) Spirits shall not contain any free mineral acid, nor capsicine or similar flavouring, nor any artificial sweetening substance.

## 59.—STANDARD OF STRENGTH FOR SPIRITS.

# 60.-DRUGS.

(1) Drugs which are included in the latest edition with amendments of the British Pharmacopœia, shall conform with the descriptions and tests respectively prescribed for them in the said Pharmacopœia, unless otherwise standardised in these Regulations, or in any Act in force, or in Regulations made thereunder.

Provided that in any preparation intended solely for external use, where Olive Oil or Arachis Oil is indicated in the established standard, Cotton Seed Oil may be used in lieu thereof; and

Provided that in a preparation where wine is used as specified in the standard established, it shall not be deemed to be adulterated in so far as it is compounded with wine, as already defined in these Regulations, of Australian origin, containing not less than twentyeight parts per centum of proof spirit. (2) The following drugs are hereby exempted from so much of the provisions of the Regulations as require that they shall be compounded with alcohol, and the said drugs shall not be deemed to be adulterated in so far as they are compounded with an equivalent proportion of methylated spirit :—

Linimentum Aconiti Linimentum Belladonnæ Linimentum Camphoratum Ammoniatum Linimentum Saponis.

(3) No drug shall be deemed to be a preparation of chloroform, provided it contains not more than one-fourth of one part per centum of chloroform.

#### 63.—METHYLATED SPIRIT.

 (1) Methylated spirit is spirit methylated in accordance with any regulation under the Customs Act. It shall have a strength of not less than sixty-five degrees over proof.
 (2) No drug for internal use shall contain any methylated spirit.

#### Labelling.

(3) There shall be written in the label attached to every package which contains any drug for external use, mixed or prepared with methylated spirit, in **bold-faced sans-serif capital** letters of not less than six points face measurement, a statement declaring the presence of the said spirit, and the proportion contained in the drug in the following form :—

THIS PREPARATION CONTAINS [here insert the number of parts per centum] PARTS PER CENTUM OF ALCOHOL IN THE FORM OF METHYLATED SPIRIT.

# 64.—ALCOHOL.

(1) There shall be written in a label attached to every package containing a proprietary medicine sold for internal use by man, which is compounded with ethylic alcohol in greater proportion than seventeen and one-half parts per centum of proof spirit, in bold-faced sansserif capital letters of not less than six points face measurement, the percentage proportion of alcohol contained in it, expressed in terms of proof spirit, in the following form :—

## ALCOHOL.

THIS MIXTURE CONTAINS NOT MORE THAN [here insert the number of parts per centum of proof spirit] PARTS PER CENTUM OF PROOF SPIRIT.

(2) When a mixture contains both alcohol and some drug required to be declared, then to the declaration concerning alcohol made in the form prescribed in paragraph (1) of this Regulation may be added the words AND INCLUDES followed by the declaration of a drug or drugs in the form prescribed in these Regulations.

# 65.-CASTOR OIL.

There shall be written in bold-faced sans-serif capital letters of not less than eight points face measurement in the label attached to every package containing castor oil, which is sold for internal use by man, the words FOR INTERNAL USE.

# 66.-EUCALYPTUS OIL.

(1) Eucalyptus oil, prepared for internal use or inhalation by man, is the essential oil distilled from the leaves of one or more species of Eucalyptus. It shall not contain more than a trace of aldehydes having a boiling point below  $120^{\circ}$  C.

#### Labelling.

(2) There shall be written in the label attached to every package which contains eucalyptus oil a statement, in bold-faced sans-serif capital letters of not less than six points face measurement, of the composition of the oil in the following form :—THIS EUCALYPTUS OIL CONTAINS PHELLANDRENE AND [the words "phellandrene and" are to be omitted if phellandrene be not present] NOT LESS THAN [here insert the number of parts per centum] PARTS PER CENT. OF EUCALYPTOL.

- Provided that this declaration shall not be required when the oil either-
  - (a) conforms to the British Pharmacopœia standard, and is labelled accordingly ; or
  - (b) has been distilled from one species of eucalyptus only, the name of which is written on the label in bold-faced sans-serif capital letters of not less than six points face measurement.

(3) In the label attached to every package containing eucalyptus oil intended for external use only, shall be written in bold-faced sans-serif capital letters, of not less than eight points face measurement, and immediately following the words EUCALYPTUS OIL the words FOR EXTERNAL USE ONLY.

# 67.—SOAP.

#### General Standard for Soap.

(1) Soap is a product derived from the action of a solution of alkali on fats, oils, or resins. It shall contain not less than fifty-nine parts per centum of fatty acids, of which not more than one-third may be resin acids. It shall contain not more than one-tenth of one part per centum of free caustic alkali, and not more than three parts per centum of carbonate of soda. It shall not contain any other substance except water, perfume, and harmless colouring matter.

# Soap Mixture.

(2) Soap mixture is soap which conforms with the general standard for soap mixed with mineral or vegetable substances, drugs and disinfectants excepted. The total amount of mineral or of vegetable substance, or of both together, that is to say, including the proportion of mineral matter permitted by paragraph (1) of this Regulation, shall not exceed ten parts per centum by weight of any soap mixture.

Provided that soap mixtures which are sold for abrasive purposes, and which cannot be used for personal ablution or for laundry work, may contain any proportion of an abrasive mineral substance.

#### Labelling.

(3) There shall be written on or attached to every package which contains a soap mixture a statement or label, in which shall be uniformly written in bold-faced sans-serif capital letters of not less than thirty-six points face measurement, the words "soap mixture," immediately followed by the words in bold-faced sans-serif capital letters of not less than eight points face measurement "soap mixed with," and the name or names of the admixed substance or substances, in the following form :—

# SOAP MIXTURE

SOAP MIXED WITH [here insert the name or names of the admixed substance or substances.]

Provided, that the soap mixture sold in bars shall be exempted from so much of the provisions of any Act requiring that a statement or label shall be written on or attached to a package containing it, stating that it is a mixture and the names of the ingredients, provided that the words prescribed above are impressed in letters of the prescribed size on each bar of soap mixed.

(4) Except as directed in paragraph (3) of this Regulation, the word "soap" and expressions which include the word "soap," shall not be written on any statement or label, written on or attached to any package which contains soap mixture, unless it be conjoined with the word "mixture" written in letters of the same size as those in which the word "soap" is written.

## MEDICATED SOAP.

(5) Medicated soap is soap which conforms with the general standard for soap mixed with a drug of recognised therapeutic properties, or with a disinfectant.

# Labelling.

(6) There shall be written on or attached to every package which contains a medicated soap, a statement or label in which shall be written in bold-faced sans-serif capital letters of not less than twelve points face measurement, the word MEDICANAL, MEDICATED, or MEDICAL. The said word may be followed by the word SOAP, but by no other word or words.

#### BORAX SOAP.

(7) Borax soap is soap which conforms with the general standard for soap mixed with not less than two parts per centum of borax.

#### SOFT SOAP.

(8) Soft soap is a product derived from the action of a solution of caustic potash with or without caustic soda, on fats, oils, or resins. It shall contain not less than forty parts per centum of fatty acids, of which not more than one-third may be resin acids. It may contain not more than three per centum of potassium silicate.

#### SOAP POWDER OR EXTRACT.

(9) This Regulation shall not apply to mixtures of dried and powdered soap with soda, commonly called soap powder, or extract of soap.

# 68.—DISINFECTANTS AND GERMICIDES, ANTISEPTICS AND DEODORANTS.

- (1) For the purpose of this Regulation-
  - (a) The words "Disinfectant" and "Germicide" shall each mean any substance or compound which in any label or statement accompanying it is said to be capable of killing the germs of disease.
  - (b) The words "Antiseptic" and "Preservative" shall each mean any substance or compound which in any label or statement accompanying it is said to be capable of preventing the development of germ and the decomposition of animal or vegetable substances; and
  - (c) The word "Deodorant" shall mean any substance or compound which in any label or statement accompanying it is said to be capable of preventing, neutralising, or destroying offensive odors.

#### Labelling of Disinfectants and Germicides.

(2) There shall be written in the label attached to every package which contains or purports to contain a disinfectant or germicide, in bold-faced sans-serif capital letters of not less than twelve points face measurement, in such colours as to afford a distinct colour contrast to the ground, the word **DISINFECTANT**, or the word **GERMI**-**CIDE**, or both such words. The said word or words shall be the first word or words of the label and no other word shall appear on the same line.

(3) There shall also be written in the label attached to every package which contains or purports to contain a disinfectant or germicide, explicit information and directions as to—

- (a) The strength or proportion of the substance or compound, and the manner in which, and the time during which the same must be used or allowed to act in order that it may be effective as a disinfectant or germicide;
- (b) Any matter in the presence of which, or any condition or circumstance in which, the disinfectant or germicidal effect of such substance or compound is counteracted, diminished, rendered inoperative, or otherwise interfered with.

(4) The word "Disinfectant" or the word "Germicide" shall not, nor shall any other word or words having a like meaning, appear in any statement or label accompanying any package which contains any substance or compound which is not effective for the purpose of killing the germs of diseases.

# Labelling of Antiseptics.

(5) There shall be written in the label attached to every package which contains or purports to contain an antiseptic, in **bold-faced** sans-serif capital letters of not less than twelve points face measurement, in such colours as to afford a distinct colour contrast to the ground, the word ANTISEPTIC. The said word shall be the first word of the principal label, and no other word shall appear on the same line.

(6) There shall also be written in the label attached to every package which contains or purports to contain an antiseptic, explicit information and directions as to—

- (a) The strength or proportion of the substance or compound, and the manner in which, and the time during which, the same must be used or allowed to act in order that it may be effective as an antiseptic;
- (b) Any matter in the presence of which, or any condition or circumstance in which, the antiseptic effect of such substance or compound is counteracted,
  - diminished, rendered inoperative, or otherwise interfered with.

#### Labelling of Deodorants.

(7) There shall be written in the label attached to every package which contains any substance described as a deodorant, in bold-faced sans-serif capital letters of not less than eighteen points face measurement, in such colours as to afford a distinct colour contrast to the ground, the word DEODORANT. The said word shall be immediately followed by the words THIS SUBSTANCE IS NOT A DISINFECTANT OR GERMICIDE, which words shall be written in bold-faced sans-serif capital letters of not less than twelve points face measurement.

(8) There shall also be written in the label attached to every package which contains or purports to contain a deodorant, explicit information and directions as to—

- (a) The strength or proportion of the substance or compound and the manner in which, and the time during which, the same must be used or allowed to act in order that it may be effective as a deodorant;
- (b) Any matter in the presence of which, or any condition or circumstance in which, the deodorant effect of such substance or compound is counteracted, diminished, rendered inoperative, or otherwise interfered with.

# 69.-HARMLESS COLOURING MATTERS.

The following substances shall be harmless colouring matters within the meaning and for the purposes of the Regulations :---

Bismarck Brown.

Caramel.

Cochineal.

Roseine.

Saffron,

Chlorophyll and every innocuous vegetable colour extractive ; and the following coal tar dyes, namely :---

Red shades—

S. & J.\* 107 Amaranth.
S. & J. 56 Ponceau 3 R.
S. & J. 517 Erythrosin.

Orange shades-

S. & J. 85 Orange I.

Yellow shades— S. & J. 4 Naphthol yellow S.

Green shades-

S. & J. 435 Light green S.F. yellowish.

Blue shades-

S. & J. 692 Indigo-carmine disulphonic acid.

\* Schultz and Julius, Systematic Survey of Organic Colouring Matters, translated by A. G. Green.

# 70.-STANDARD METHODS OF ANALYSIS.

The methods of analysis and examination, whereby the composition, quality, or conformity or want of conformity to standard of any food or drug, shall be ascertained, shall be in accordance with the methods specified in Schedule A hereto, and no other method shall be followed unless such method shall have first been submitted to and approved by the Commissioner of Public Health.

# 71.-REPEAL.

Regulations Numbers 1 to 11, 13 to 60, and 63 to 71, made and published in the *Government Gazette* on the 26th June, 1913, are hereby repealed : Provided that regulations numbered 11, 19 (s.s.15), 44 (s.s. 3), 45 (s.s. 3), 46 (s.s. 3), 47 (s.s. 4), 48 (s.s. 3), 49 (s.s. 3), and 50 (s.s. 2) of these regulations, and the repeal of regulations numbered 11, 18 (s.s. 6), 36 (s.s. 3), 47 (s.s. 3), 48 (s.s. 3), 49 (s.s. 3), 50 (s.s. 4), 51 (s.s. 3), 52 (s.s. 2), 53 (s.s. 2), and 54 (s.s. 2) of the regulations published in the *Government Gazette* of the 26th June, 1913, shall take effect from the first day of March, 1915, and provided further that regulation 58, paragraphs 3 and 4 of these Regulations shall take effect from the 1st day of January, 1915.

# 72.—SHORT TITLE.

These Regulations shall be read with the regulations published in the *Government Gazette* of the 26th June, 1913, and remaining unrepealed, and may together be cited as the "Food and Drug Regulations, 1913–14."

# SCHEDULE A.

#### METHOD OF ANALYSIS TO BE USED IN ANALYSIS OF FOODS, ETC., UNDER THE HEALTH ACT, 1911, AND REGULATIONS THEREUNDER.

#### GENERAL.

The Estimation of Moisture, unless otherwise specially described, shall be made by drying by any of the usually accepted methods employed in Chemical Laboratories and by determining the consequent loss in weight.

The Determination of Ash shall be made by the incineration of a definite quantity of the substance to be tested by any of the generally accepted means of incineration, and afterwards determining by weighing the amount of incombustible matter remaining.

The Estimation of Nitrogen shall be made by the Kjeldahl-Gunning method, described in "Food Inspection and Analysis," by A. E. Leach, 2nd edition, 1909, page 69, et seq.

1. FLOUR-

*Fibre* shall be determined by the A.O.A.C.\* Method, as described in Bulletin 107 (Revised) of the United States Department of Agriculture, page 56, Section 11.

#### 2. BREAD-

Alum shall be tested for by the Logwood Test, as described in "Food Inspection and Analysis," by A. E. Leach, 2nd edition, page 326.

3. OATMEAL-

(a.) Ethereal Extract shall be estimated as described in "Food Inspection and Analysis," by A. E. Leach, 2nd edition, 1909, page 277.

(b.) Foreign Meals.-Microscopical examination as described in the same, page 314.

4. RICE-

- (a.) Talc.—To be detected by the amount of insoluble ash found, and to be determined by analysis
- (b.) Foreign Substances.—To be searched for by microscopical and general analysis as described in "Foods—their Composition and Analysis," by A. Wynter Blyth, 4th edition, 1896, page 215.

5. RICE FLOUR-

- Foreign Substances .- Microscopical and general Analysis, as described in "Focds-Their Composition and Analysis," 4th edition, 1896, by A. Wynter Blyth, page 215.
- CREAM OF TARTAR-6.
  - (a.) Acid Tartrates to be estimated by the titration method as described in "Food Inspection and Analysis," by A. E. Leach, 2nd edition, 1909, page 336, or by the following method :-

3.76 grms. (limit of solubility) of finely powdered Cream of Tartar are placed in flask and 750 c.c. water added, heated to boiling and kept boiling for five minutes, made up to one litre, cooled down and made up to the mark again. Filter through dry filter and take 500 c.c. filtrate for estimation and evaporate on water bath. The dry residue while still hot is moistened with five c.c. of water, and after cooling, 100 c.c. alcohol (95 per cent.) added and the whole thoroughly stirred. Let stand for thirty minutes and filter off alcohol through dry filter and as soon as the alcohol is all off the small quantity of Cream of Tartar on filter is washed back with boiling water and total volume made up to 100 c.c. with hot water and titrated with N/5 KOH (free from  $CO_2$ ) using phenol-phthalein as indicator. To the number of c.c. used add 0.2 c.c. in order to compensate for loss of Bitartrate dissolved in alcohol.

NOTE.-Run in about 10 c.c. alkali over end point and boil well as Potassium Tartrate is easily soluble. Boil well and titrate back for excess of alkali.

- (b.) Sulphates.-A.O.A.C. Method, Bulletin 107, United States Department of Agriculture (1912), page 178, Section 14.
- (c.) Arsenic .- Modified Fresenius-Babo Method ("Report of Royal Commission appointed to inquire into Arsenical Poisoning from the consumption of Beer and other articles of Food or Drink," Appendix 20, page 206) in conjunction with fuming Nitric Acid with "Perhydrol" and estimation by Electrolytic Method (Analyst Volume XXXVII., page 212).
- (d.) Lead.-To be estimated by method described in Journ, Soc. Chem. Ind. 1893, 12, 97, 222 (see Sutton's "Volumetric Analysis," page 247), or that described in "Food Inspection and Analysis," by A. E. Leach, 2nd edition, 1909, page 902.
- 7. BAKING POWDER-
  - (a.) Sulphates.—See Section 6 (b.).
  - (b.) Carbon Dioxide.-By A.O.A.C. Method described in Bulletin 107 (revised), 1912, Section 26, page 169.
  - (c.) Alum.-See Section 2.
- 8. INFANTS' FOODS-
  - (a.) Woody Fibre.—See Section 1.
  - (b.) Insoluble Ash.-See Section 4.
  - (c.) Foreign Substances.-Microscopical and General Analysis.
- 9. MALT-

Arsenic.-See Section 6 (c).

- 10. MALT EXTRACT-
  - (a.) Diastatic Power.--Harrison-Gair Method (Pharm. Journ. 77, 1906, pages 94-95). (b.) Total Solids.-Harrison-Gair Method (Pharm. Journ. 77, 1906, pages 94-95).
- 11. SMOKED MEATS-

(a.) Saltpetre, etc.-To be estimated by the zinc dust and iron filings method described in Sutton's "Volumetric Analysis," 10th edition, 1911, page 273, or by the following method :-

Gravimetric Determination of Saltpetre in Meat. C. Paal and G. Mehrtens (Zeitschrift fur Untersuchung der Nahrungsund Genusmittel, 1906, 12, page 410).

A 10 per cent. solution of Nitron in 5% acetic acid is used as a reagent. 50gm. of meat are digested for 1-2 hours with luke-warm water, stirring the mixture frequently. The temperature is now raised to boiling, the extract poured through a filter and the residual meat further extracted with small quantities of water until Diphenylamin no longer gives any reaction. 50 gms. meat can be completely extracted with 500 c.c. water. To 100 c.c. of this extract neutral acetate of lead is added drop by drop as long as a precipitate forms. It is now heated to the boiling point whereby a fairly voluminous precipitate is formed. The precipitate is allowed to subside and when cold, filtered and washed. The filtrate is heated nearly to boiling point, acidified with acetic acid, and mixed with 10 c.c. or more of the Nitron solution. After  $2\frac{1}{2}$  to 3 hours of standing on ice the precipitate, which has separated out in needles, is filtered by suction through a Gooch crucible or an Allihn asbestos tube and washed with small quantities of ice water (altogether about 10 c.c.). The precipitate is now dried at 110 degrees C. to constant weight, about one hour's drying being usually sufficient. The calculation of potassium nitrate from the Nitron-nitrate is as follows :-

$$X = \frac{A \times 101}{375}$$

A = Weight of Nitron-nitrate.

101 = Molecular weight of Potassium Nitrate,

375 = Molecular weight of Nitron-nitrate.

If the meat decoction gives a copious precipitate with Silver Nitrate and Nitric Acid indicating the presence of large quantities of salt, the portion of the decoction which is used for the determination of the Nitrates (about 100 c.c.) is reduced to about 20 c.c. by evaporation on the water bath, and after cooling neutral lead acetate is added drop by drop as long as a precipitate is formed. The precipitate is heated for a short time and allowed to subside ; when cold it is filtered, washed with small portion of water, and the filtrate made up to 150-180 c.c. (or 100 c.c. if only small quantities of Nitrates are present). The precipitation with Nitron is carried out as described above. If the lead acetate precipitate should not filter well, an improvement may be effected by the addition of 2-3 drops of ammonia (not much more) to the concentrated decoction before the lead acetate is added (if too much ammonia is added there is danger that the lead precipitate may carry down nitrates). In some cases, when the filtrate from the lead precipitate is made up to 100 c.c. only, gelatinous flocks of Nitron-chlorhydrate form. In this case the solution must be warmed up again, till the chlorhydrate is redissolved and another 20-30 c.c. water added. It is placed again on the ice, when the Nitron-nitrate separates out in pure needles.

12. Dripping-

Foreign Substances .--- To be examined microscopically for foreign fats, etc.

- 13. LARD-
  - Foreign Substances.—Microscopical examination for determination of crystalline form and determination of Fat constants as described in "Chemical Technology and Analysis of Oils, Fats, and Waxes," by Dr. Lewkowitsch, 3rd edition (1904), Vol. II., pages 776-801.
- 14. SAUSAGES, ETC.-
  - (a.) Starch.—To be determined by method adopted by A.O.A.C. (Mayrhofer's Method), Bulletin 107 (revised), 1912, United States Department of Agriculture, page 109, or by the Alcoholic Potash cum Pavy or Fehling's method, as follows :—

Forty to 60 grms. Sausage (according to Iodine reaction) are dissolved in 100-150 c.c. of 8 per cent. Alcoholic Potash, covered with a watch glass and heated to boiling on water-bath. Solution is filtered through a Gooch crucible and the residue again treated with 50 c.c. Alcoholic Potash and washed several times with 50 per cent. hot alcohol. Chief quantity of starch which is left in beaker and the starch on asbestos filter are mixed with 200 c.c. water and 15 c.c. H.Cl (sp. gr. 1.125) and inverted for three hours, in boiling water bath. After cooling neutralise with caustic soda and make up to 300 c.c. and glucose is determined in an aliquot portion. If substance contains a large quantity of cellulose it is separated from starch by aqueous solution of KOH, by treating residue with 30 to 60 c.c. of 3–5 per cent. aqueous Potash solution which dissolves starch. Mixture is made up to 200 c.c. after asbestos has been strained off, and the fluid then allowed to settle in a cylinder. 100 c.c. are drawn off and neutralised with HCl and then inverted for three hours in water bath with 7.5 c.c. of HCl (sp. gr. 1.125). After neutralisation filter and make up to 200 c.c. The glucose is estimated by Fehling's solution, etc.

(c.) Sulphur Dioxide.—To be tested for by distillation with phosphoric acid and estimated as sulphate, as described in "Food Inspection and Analysis," by A. E. Leach, 2nd edition (1909), page 834.

#### 15. MEAT EXTRACT-

- Meat proteins.—To be determined by estimation of Creatinin as described in Chem. News, Vol. 95, page 146, or by the method described in the Proceedings of the A.O.A.C. 1907 Bulletin 116, United States Department of Agriculture, page 44.
- 16. CANNED VEGETABLES-
  - Copper.—To be determined colorimetrically as described in "Food Inspection and Analysis," by A. E. Leach, 2nd edition (1909), page 903, or as described in "Volumetric Analysis," by F. Sutton, 10th edition (1911), page 204.

#### 17. Gelatine-

Sulphur Dioxide.—See Section 14 (c.).

- 18. OLIVE OIL-
  - (a.) Specific Gravity.—To be determined as described in "Chemical Technology and Analysis of Oils, Fats, and Waxes," by Dr. Lewkowitsch, 3rd edition, 1904, Vol. I., page 159, et seq.
  - (b.) Saponifiable Value.—To be determined as described in "Chemical Technology and Analysis of Oils, Fats, and Waxes," by Dr. Lewkowitsch, 3rd edition, 1904, Vol. I., page 226, et seq.
  - (c.) Iodine Value.—To be determined as described in "Chemical Technology and Analysis of Oils, Fats, and Waxes," by Dr. Lewkowitsch, 3rd edition, 1904, Vol. I., pages 242.
  - (d.) Foreign Oils.—To be detected from Fat Contents assisted by Refractometer Readings and Halphen's Test, as described in "Chemical Technology and Analysis of Oils, Fats, and Waxes," Vol. II., page 534.

<sup>(</sup>b.) Saltpetre.—See Section 11 (a.).

19. MARGARINE-

- (a.) Water.—See Section 27 (b.).
- (b.) Colouring Matter.—Vegetable and Coal Tar colours to be determined by method described in "Food Inspection and Analysis," by A. E. Leach, 2nd edition, 1909, pages 535-537.
- (c.) Boric Acid.—To be estimated by method described in "Analyst," Vol. XXVII., page 181 (Milk Sugar Method).
- 20. Milk-
  - (a.) Fat.—To be estimated by one of the following methods :—Gerber Method (see "Allen's Commercial Organic Analysis," 2nd edition, 1898, Vol. IV., page 141), Leffman-Beam Method (see "Food Analysis," by Leffman & Beam, 1901, page 205), Werner Schmidt Method (ditto, page 204), or the Gottlieb Roesse Method, as follows :— Take about 10 grms. milk in special Gottlieb tube. Add 1–2 c.c. Ammonia and 10 c.c. alcohol (95 per cent.), shake well, then half fill the top of bulb with sulphuric ether, shake well. Add Petroleum Ether to mark, turning the tube end for end carefully to avoid emulsion. Let stand. Read off on scale both boundaries of top layer containing fat. Take 20 c.c. of fat solution thus obtained for evaporation and calculate the percentage of fat after drying in the water-bath for 1 hour at 100deg. C.
  - (b.) Solids not Fat.—To be determined by difference between Total Solids and Fat.
  - (c). Total Solids.—To be estimated by evaporation in weighed platinum, porcelain, or nickel dish of a weighed quantity of the milk and determination of the residue. (See "Aids to the Analysis of Food and Drugs," by Pearmain & Moor, 2nd edition, 1899, page 17.)
  - (d.) Annatto.—To be tested for by scheme described in "Food Inspection and Analysis," A. E. Leach, 2nd edition, 1909, page 177.
    - SPECIAL NOTE.—If the milk is slightly soured, a representative sample may be obtained by whisking, but samples must be done, at least, in duplicate, and not less than 20 grams are to be taken for total solids. The acidity must be neutralised by N/10 Baryta using Phenol Phalein as indicator and  $\cdot 00675$  gram must be deducted for every c.c. of N/10 Baryta added. The milk must be weighed out for estimation of the fat by the Gottlieb-Roesse or Werner Schmidt methods.
    - If the milk is badly soured, the maceration process must be employed as follows:— After thorough whisking, at least two fots of not less than 20 grams are weighed out into suitable dishes, preferably of platinum, with each of which is weighed a small glass rod flattened at the end. The milk is neutralised with N/10 Baryta as above and evaporated, the end of the operation being conducted with constant stirring, and care being taken that the solids obtain the consistency of dry cheese. The solids are then extracted with dry ether eight successive times and with constant stirring and the liquid decanted through tared filters into tared beakers or flasks. The filters having been washed free from fat with ether, the liquid is evaporated or distilled off and the fat weighed. The solids not fat in the dishes and filters (which ought to have the consistency of dry flour) are dried at 100° C. till constant and weighed, the deduction stated above being made for each c.c. of N/10 Baryta added.

In the case of sour milks when the fat has become churned, or in which no homogeneous sample can be obtained by whisking, the whole of the sample must be analysed by the maceration process.

- 21. CREAM-
  - (a.) Fats.—To be estimated by the modified Leffman-Beam Method (Pearmain & Moor's "Aids to the Analysis of Food and Drugs," 2nd edition, 1899, page 37), the Werner-Schmidt Method ("Food Inspection and Analysis," A. E. Leach, 2nd edition, 1909, page 139), or by the Gottlieb-Roesse Method (see Section 20 (a.).
  - (b.) Boric Acid.—See Section 19 (c.).
  - (c.) Sucrate of Lime.—To be tested for by the method described in "Food Inspection and Analysis," A. E. Leach, 2nd edition, page 197.
- 22. UNSWEETENED CONDENSED MILK-
  - (a.) Total Solids.—10 per cent. solution to be treated as under Section 20 (c.).
    (b.) Fat.—See Section 20 (a.).
- 23. Sweetened Condensed Milk-
  - (a.) Total Solids.—10 per cent. solution to be treated as under Section 20 (c.).
    (b.) Fat.—See Section 20 (a.).
- 24. CONCENTRATED MILK-
  - (a.) Fat.—See Section 20 (a.).
  - (b.) Total Solids.-See Section 20 (c.).
  - (c.) Boric Acid.-See Section 19 (c.).

- 25. CONDENSED SKIM MILK-Total Solids.-See Section 20 (c.).
- 26. DRIED MILK AND DRIED SKIM MILK-
  - (a.) Total Solids.
  - (b.) Fat.

The milk to be first diluted according to directions on the package, and then tested under Section 20 (a.) and (c.).

- 27. BUTTER-
  - (a.) Foreign Fats .- To be detected by Reichert-Meissl Method ("Food Inspection and Analysis," A. E. Leach, 2nd edition, 1909, page 481), also by Refractometer Readings or glycerol-soda method. Leffman and Beam, 1901, page 146. (b.) Water.—To be estimated by method described in "Foods, Their Composition and
  - Analysis," by A. Wynter Blyth, 4th edition, 1896, page 344.
  - (c.) Butter Fat.-To be estimated by method described in "Food Analysis," by Leffman & Beam, 1901, page 233.
  - (d.) Salt .--- To be estimated by method described in "Food Analysis," by Leffman & Beam, 1901, page 233.
  - (e.) Boric Acid.-See Section 19 (c.).

#### 28. Cheese and Skimmed Milk Cheese-

(a.) Fat.-To be estimated by the following method by Dr. E. Ratzlaff (Milch Zeitung, 1903, No. 5) :-

3-5 grm. cheese is weighed into a small Erlenmeyer flask about four cm. diameter, 10 c.c. HCl is added (sp. gr. = 1.125), a small funnel is placed in the neck of the flask and the contents are heated on a water bath till they are dissolved. The lask is now placed on a sand bath or sheet of asbestos, and its contents carefully heated to boiling and kept boiling for two or three minutes. The flask is allowed to cool, and 5-10 c.c. Sulphuric Ether is run in while the contents are still slightly warm. The contents are now poured into a Gottlieb tube and the flask is rinsed out once with sulphuric ether and twice with petroleum ether boiling below 60 degrees C. The tube is closed with a cork (soaked in water and wiped shortly before using). The contents of the Gottlieb tube are thoroughly mixed and allowed to separate for 1-2 hours, when the volume of the ether solution is read and an aliquot portion of it pipetted off and run into a tared glass basin. The ether is allowed to evaporate spontaneously and the remaining fat is dried at 100 degrees C. for one hour and weighed. The mixture of sulphuric and petroleum ether possesses an advantage over sulphuric ether alone in that it will dissolve fat only and not other constituents of the cheese.

- (b.) Foreign Fats.—See Section 27 (a.).
- 29. TEA-
  - (a.) Extract.-To be estimated by the following method :-Pulverise about 10 grms. of the sample and from this weigh out one gram and boil with 50 c.c. water for 1-hour and filter, repeat the digestion until the filtrate comes through colourless. Evaporate the filtrate to dryness in a glass basin, and weigh, making the necessary correction for the moisture.
  - (b.) Soluble Ash .--- To be estimated as follows :--- After weighing the total ash it is taken up with boiling water and filtered, washing the residue till free from alkali, then dry the residue and filter paper and incinerate and weigh, deduct the weight of the filter ash from the weight obtained, this leaves the insoluble ash, which in turn-deducted from the total ash leaves the soluble ash.
  - (c.) Insoluble Ash .- Estimated by difference between total ash and soluble ash.
- 30. COFFEE-
  - (a.) Fat.-To be estimated by Soxhlet method (see "Food Analysis," by Leffman & Beam, 1901, page 269).
  - (b.) Sugar.-5 grms. are exhausted with boiling water, cleared with lead acetate and HaS inverted and estimated with Pavy or Fehling's solution, or by polariscope. (See also A.O.A.C. Method, Bulletin 107, 1912 (revised), United States Department of Agriculture, page 154.)
  - (c.) Chicory.-To be estimated by McGill's modification of the sp. gr. of a 10 per cent. infusion method (see Allen's Commercial Organic Analysis, Vol. III., Part II., page 549, 1902).
  - (d.) Caffeine.-To be estimated by Tatlock & Thompson's Method (Journ. Soc. Chem. Ind., 1910, page 138, Volume 29).

Caffeine.—See Section 30 (d.).

<sup>31.</sup> COFFEE ESSENCE-

32. COCOA AND COCOA PASTE-

(a.) Fat.-To be estimated by the Soxhlet method described in "Food Inspection and

Analysis," A. E. Leach, 2nd edition, 1909, page 398, or by the following method :-Weigh out 4 to 4.5 grms. cocoa in a 100 c.c. measuring flask, add 20 c.c. strong alcohol, boil up in water bath for a few minutes taking care that not too much alcohol boils away (the solution is very liable to bump). Now 20 c.c. sulphuric ether is added, the flask placed for a few minutes in warm water, shaken up, cooled, and make up to the 100 c.c. mark with ether. An additional 2 c.c. of ether is added (to make up for the volume occupied by the 4-4.5 gm. cocoa = 3.2 gm. defatted coccoa), the flask is closed with a cork, which has been soaked in water and wiped just before using. The contents of the flask are mixed and allowed to settle. Of the nearly clear liquid 50 c.c. are drawn off with a pipette and allowed to evaporate spontaneously in a fair-sized porcelain basin. The residual fat is heated for 20-30 minutes on a vigorously boiling water bath and allowed to cool completely, taken up with cold sulp. ether and filtered through a glass tube containing a plug of cotton wool (about 2 drops per second) into a glass basin. The perfectly clear filtrate and washings are allowed to evaporate spontaneously, and the residual fat is dried for one hour at 100°C.

The residue may be used for the determination of starch after it has been placed on a filter and thoroughly washed with hot 70 per cent. alcohol to free it from any sugar present. The alcoholic washings may be used for the determination of sugar after being concentrated by evaporation to about 40 c.c. clarified with about 2 c.c. lead acetate, and made up to 50 c.c.

#### % Fat = 2 x weight of Fat in glass basin x 100

#### Weight of cocoa taken.

- (b.) Starch.—To be estimated as described in "Aids to the Analysis of Food and Drugs," by Pearmain & Moor, 2nd edition, 1899, page 88.
- (c.) Sugar.—To be estimated as described in "Aids to the Analysis of Food and Drugs," by Pearmain & Moor, 2nd edition, 1899, page 88.
- (d.) Fibre.—To be estimated as described in "Aids to the Analysis of Food and Drugs," by Pearmain & Moor, 2nd edition, 1899, page 88.
- (e.) Soluble Ash.—See Section 29 (b.).

33. SOLUBLE COCOA-

Alkalinity of Ash.—To be determined by titration with Methyl Orange, as described in "Foods Inspection and Analysis," A. E. Leach, 2nd edition, 1909, page 369.

34. MIXED SPICES, CINNAMON, CASSIA, CLOVES, NUTMEG-

Foreign Substances.—To be detected by microscopical examination as described in "Food Inspection and Analysis," A. E. Leach, 2nd edition, 1909, page 412, et seq.

- 35. GINGER-
  - Exhausted Ginger.—To be detected by Dyer & Gilbard's method for water soluble ash (see "Food Inspection and Analysis," A. E. Leach, 2nd edition, 1909, page 448).
- 36. BLACK PEPPER AND WHITE PEPPER-
  - (a.) Ethereal Extract.—Soxhlet's method to be used as described in "Food Inspection and Analysis," A. E. Leach, 2nd edition, 1909, page 410.
  - (b.) Alcoholic Extract.—Soxhlet's method to be used as described in "Food Inspection and Analysis," A. E. Leach, 1909, 2nd edition, page 64.
- 37. GROUND PEPPER.-
  - (a.) Ethereal Extract.—See Section 36 (a.).
  - (b.) Alcoholic Extract.-See Section 36 (b.).
  - (c.) Foreign Substances.—To be detected by microscopical and general analysis (see "Food Analysis," by Leffman & Beam, 1901, page 294); "Aids to the Analysis of Foods and Drugs," by Pearmain & Moor, 2nd edition, 1899, pages 93-95; also "Analyst," XIV., page 82 (A. W. Stokes).
- 38. CAYENNE PEPPER-
  - (a.) Ethereal Extract.—See Section 36 (a.).
  - (b.) Alcoholic Extract.—See Section 36 (b.).
  - (c.) Foreign Substances.—See Section 37 (c.), also see Allen's Commercial Organic Analysis, 2nd edition, 1902, Vol. III., Part III., page 49.
- 39. MUSTARD-
  - (a.) Starch.-To be estimated by Harrison-Gair method. See Section 10 (a.).
  - (b.) Foreign Substances.—To be detected by microscopical and general analysis (see "Food Inspection and Analysis," A. E Leach, 2nd edition, 1909, page 459, Allen's Commercial Organic Analysis, 2nd edition, Vol. III., Part III., page 118, also A.O.A.C. Official and Provisional Methods, United States Department of Agriculture, Bulletin 107, 1912 (revised), pages 156 and 190).

- 40. MUSTARD PASTE-
  - (a.) Dextrin.—To be determined by method given in Allen's Commercial Organic Analysis, 3rd edi ion, 1898, Vol. I., Pages 420-421.
  - (b.) Starch.—See Section 39 (a).
  - (c.) Foreign Substances.—To be detected by microscopical and general analysis (see Section 39 (b), also "Foods—Their Composition and Analysis," 4th edition, by A. Wynter Blyth (1896), page 599).
- 41. VINEGAR, SUGAR VINEGAR, ETC .---
  - (a.) Mineral Acids.—To be estimated by Frear's method or Hehner's method, as described in "Food Inspection and Analysis," A. E. Leach, 2nd edition, 1909, page 766-767.
  - (b.) Acetic Acid.—To be estimated by method described in "Aids to the Analysis of Food and Drugs," by Pearmain & Moor, 2nd edition, 1899, page 73.
  - (c.) Lead.—To be determined colorimetrically (see Section 6 (d)).
  - (d.) Copper.-To be determined colorimetrically (see Section 16).
  - (e.) Foreign Colours.—Aniline dyes to be tested for by dyeing on wool and stripping (see "The Identification of Pure Organic Compounds," S. P. Mulliken, Vol. III., 1st edition, page 256).
- 42. MALT VINEGAR-
  - (a.) Total Solids.—To be estimated as described in "Aids to the Analysis of Food and Drugs," by Pearmain & Moor, 2nd edition, 1899, page 73.
  - (b.) Phosphoric Acid.—To be determined as described in "Food Inspection and Analysis," A. E. Leach, 2nd edition, 1909, page 764.
  - (c.) Specific Gravity.—To be determined as described in "Food Inspection and Analysis," A. E. Leach, 2nd edition, 1909, page 764.
- 43. WINE VINEGAR— Total Solids.—See Section 42 (a).
- 44. PICKLES-
  - (a.) Mineral Matters.—To be determined by chemical examination of ash (see "Food Inspection and Analysis," A. E. Leach, 2nd edition, 1909, page 909).
  - (b.) Sulphurous Acid.—See Section 14 (c).
  - (c.) Salicylic Acid.—To be determined colorimetrically after extraction with ether as described in "Food Inspection and Analysis," A. E. Leach, 2nd edition, 1909, page 826.
- 45. SUGAR-
  - Saccharose.—To be determined by one of the following methods :—(1) That described in "Food Inspection and Analysis," A. E. Leach, 2nd edition, 1909, page 586 (polariscope); (2) That described in the same edition, page 591 (Fehling's Volumetric), and page 593 (Fehling's Gravimetric); (3) Pavy's method (see "Analyst," Vol. XX., 1895, page 230).
- 46. GLUCOSE STARCH AND HYDROUS STARCH SUGAR-
  - (a.) Dextrose.-To be estimated by Fehling's or Pavy's Method, see Section 45.
  - (b.) Gravity.-By Pyknometer.
  - (c.) Arsenic.-See Section 6 (c).
- 47. HONEY-
  - (a.) Moisture.—To be determined as follows :--
    - Take five grms. and add hot water. Run on to a previously dried and weighed paper coil. Dry for four hours in oven at 105 degrees C.
    - (See also "Determination of Moisture in Sirups and Molasses," by W. D. Horne, Proceedings of A.O.A.C., United States Department of Agriculture, Bulletin 116, 1908, pages 22 and 23).
  - (b.) Reducing Sugars and (c) Cane Sugar.—To be clarified with alumina cream and estimated by Fehling's or Pavy's method, as follows :—

Take 10 grms. Honey; dissolve in cold distilled water. Add little alumina cream (2 drops ammonia stops bi-rotation); make up to 250 c.c., and filter.

- (b.) Take 20 c.c. of above solution, make up to 250 c.c., and take 25 c.c. and precipitate with Fehling's solution, using Meissl's table (see "Principles and Practice of Agricultural Analysis," by H. W. Wiley, Vol. III. (1897), pages 158-9) for Invert Sugar. Proportions 25 c.c., Fehling's, 25 c.c. Sugar, 25 c.c. Water. Boil two minutes.
- (c.) Take 20 c.c. of original solution; make up to 50 c.c. Add 3.9 c.c. HCl (sp. gr. 1.125), bring up to 70 degrees C. in three minutes, and keep at that temperature for five minutes. Neutralise and keep slightly acid, and make up to 250 c.c. Take 25 c.c. and precipitate, using Meissl's table (see above).

Deduct (b) from (c), calculate to 100 per cent., and multiply by 0.95 to get per cent. Cane Sugar.

- (d.) Glucose.—To be detected by Beckman's Test as described in "Food Inspection and Analysis," A. E. Leach, 2nd Edition 1909, page 641.
- (e.) Molasses.—To be detected by the following method :—Take 5 c.c. of a not more than 25 per cent. honey solution, mix with 2.5 c.c. lead subacetate solution and 22.5 c.c. methyl alcohol. If molasses is present a strong whitish or yellowish precipitate occurs.
- (f.) Saccharin.—To be detected by method described in "Food Inspection and Analysis,"
   A. E. Leach, 2nd edition, 1909, page 843.
- 48. CONFECTIONERY-
  - (a.) Resins.—To be detected by method described in "Chemical Technology and Analysis of Oils, Fats, and Waxes," by Dr. Lewkowitsch, 3rd edition (1904), Vol. I., page 384 (Storch's reaction).
  - (b.) Paraffin.—To be determined by method described in "Food Inspection and Analysis," A. E. Leach, 2nd edition, 1909, page 647.
  - (c.) Alcohol.—To be determined by method described in "Food Inspection and Analysis,"
     A. E. Leach, 2nd edition, 1909, page 649. (See also A.O.A.C. Method, United States Bulletin 197 (revised), 1912, Department of Agriculture.)
- 49. PASTRY-
  - (a.) Saccharine.—See Section 47 (f).
  - (b.) Alum.-See Section 2.
  - (c.) Copper.-See Section 16.
- 50. ICE CREAM-
  - (a.) Milk Fat.-To be estimated by the Roesse-Gottlieb method (see Section 20, a).
  - (b.) Viscogen.—To be detected by the method described in "Food Inspection and Analysis," A. E. Leach, 2nd edition, 1909, page 197.
  - (c.) Gelatine.—To be detected by Stoke's method (see "Food Inspection and Analysis,"
     A. E. Leach, 2nd edition, 1909, page 196; also by Robin's method, page 922).
- 51. PRESERVED FRUITS-

Foreign Substances .--- To be detected by microscopical and general analysis.

- 52. JAMS-
  - (a.) Added Glucose.—To be detected as described in "Food Inspection and Analysis," 2nd edition, 1909, A. E. Leach, pages 632 and 919.
  - (b.) Gelatine.—See Section 50 (c).
  - (c.) Starch.— To be detected by iodine test as described in "Food Inspection and Analysis," A. E. Leach, 2nd edition, 1909, page 922.
- 53. FRUIT JELLY-
  - (a.) Added Glucose.—See Section 52 (a).
  - (b.) Gelatine.—Sce Section 52 (b).
  - (c.) Starch.—See Section 52 (c).
  - (d.) Foreign Substances.—To be detected by microscopical and general analysis.
- 54. OIL OF LEMON AND TERPENELESS ESSENCE OF LEMON-
  - Citral.—To be determined by method described in "Food Inspection and Analysis," A. E. Leach, 2nd edition, 1909, page 866–868, or "Analyst," 1909, page 14.
- 55. Essence of Lemon---
  - Oil of Lemon.—To be determined by Thorpe and Holmes' Method, as described in "Allen's Commercial Organic Analysis," 4th edition, Vol. I. (1909), page 129, or the method of the A.O.A.C., United States Department of Agriculture Bulletin 107 (revised), 1912.
- 56. CITRIC AND TARTARIC ACIDS-

(a.) Arsenic.—See Section 6 (c).

(b.) Lead.—To be detected colorimetrically. See Section 6 (d).

- 57. AERATED WATERS—
  (a.) Arsenic.—See Section 6 (c).
  (b.) Lead.—See Section 6 (d).
- CERTAIN CORDIALS— Glycerine.—To be determined by method described in "Food Inspection and Analysis," A. E. Leach, 2nd edition, 1909, page 703.

- RASPBERRY VINEGAR AND SYRUP— (a.) Glycerine.—See Section 58 (a).
  - (b.) Acetic Acid.—See Section 41 (b).
- 60. COMPOUND CORDIALS— Glycerine.—See Section 58 (a.)
- NON-EXCISABLE FERMENTED DRINKS— Alcohol.—To be determined as described in "Food Inspection and Analysis," A. E. Leach, 2nd edition, 1909, pages 658, 659.
- 62. QUININE BITTERS-
  - Quinine.—To be estimated by extraction with immiscible solvents (modified Dragendorff's Method), described in Allen's Commercial Organic Analysis, 2nd edition, 1902, Vol. III., Part II., pages 158, 159.
- 63. BEER-
  - (a.) Strychnine.—To be detected by extraction with immiscible solvents, as under Section 62.
    (b.) Picric Acid.—To be detected by dyeing tests, as described in "Identification of Pure Organic Compounds," by S. P. Mulliken, Vol. III., 1st edition, page 182.
  - (c.) Lead.—See Section 6 (d).
  - (d.) Arsenic.—See Section 6 (c).
- 64. Spirits-

For accurate comparisons, all spirits should be reduced in strength to (approximately) 15 under proof before proceeding with the analysis.

Total Acidity.—25 ecs. of the spirits are titrated with N/10 Baryta solution, using Phenol Phthalein as an indicator. (If the spirit is dark in colour it is diluted with distilled water carefully neutralised, or which has been boiled to expel  $CO_2$  immediately before use.)

Extract.-25 ccs. are evaporated to dryness and dried in the water oven till weight is constant.

*Fixed Acidity.*—The extract as above determined is taken up with neutralised or boiled water and titrated with N/10 Baryta and Phenol Phthalein.

*Volatile Acidity.*—The difference between the alkali required for the total and fixed acidity is calculated to Volatile Acidity.

Compound Ethers, Furfural, and Aldehydes.—200 ccs. of the spirit are distilled as low as possible without charring, and the distillate is made up to 200 ccs. Of this, 100 ccs. are taken for Ethers, 5ccs. for Furfural, and 5 ccs. for Aldehydes.

Compound Ethers.—100 ccs. are taken, Phenol Phthalein added, and the free acidity exactly neutralised with N/10 Soda. A further quantity of 25 ccs. N/10 Soda is then added, and boiled under a reflux condenser for one hour, cooled, and the amount of Soda used for saponification estimated by titration with N/10 Sulphuric Acid.

Furfural.—5 ccs. of the above distillate are taken side by side with 5 ccs. of a standard alcoholic solution of proof strength containing  $\cdot 001$  per cent. of Furfural. Both solutions are diluted to 19 cc. in 20-cc. cylinders with furfural free spirit of proof strength. 1 cc. of a solution of Aniline acetate (equal parts aniline, glacial acetic acid, and water) is added to each, and after standing for 15 minutes the depth of the colour of the standard and the test are compared by means of a Duboscq colorimeter.

Aldehydes.—5 ccs. of the distillate are taken side by side with 5 ccs. of standard alcoholic solution of proof strength containing  $\cdot 01$  per cent. of Acetaldehyde. Both are diluted to 16 ccs. in 20-cc cylinders with aldehydes free alcohol of proof strength, 4 ccs. of Guyon and Schiff's re-agent\* are added, and after standing for 15 minutes the tints are compared with a Duboseq colorimeter.

Higher Alcohols.—100 ccs. of the spirit are taken, 20 ccs. of N/10 Soda with a few fragments of pumice are added, and the test boiled for one hour under a reflux condenser to saponify ethers. The liquid is tested to see whether there is still an excess of alkali. If there is not, a further 20 cc. of alkali is added and the test boiled for an additional hour. The spirit is then distilled nearly to dryness and the distillate made up to a specific gravity of  $1 \cdot 1$  with saturated salt solution acidified with a drop or two of Sulphuric Acid. It is then cooled or warmed, as the case may be, to  $60^{\circ}$  F., as are all re-agents used in the following process, which is conducted in a room regulated to that temperature. 100 ccs. of carbon tetrachloride are added in successive quantities of 40, 30, 20, and 10 ccs., and the liquids are thoroughly shaken for one minute, allowed to separate, and the bottom layer drawn off after each addition. The total carbon tetra-chloride extract is then shaken, first with 50 ccs. of acidified saturated salt solution for one minute and separated, then with 50 ccs. of saturated sodium sulphate solution for one minute, after which it is treated with an oxidising mixture of  $(1 \cdot 5 \text{ ccs. of concentrated H}_2SO_4$  made up to 30 ccs. with water containing 5 grms. of K\_2Cr\_2O\_7) in a ground glass-stoppered 80z. bottle held in a specially adapted pressure frame, and agitated for at least three hours in the interior of a hot water bath so constructed that the bottle and its contents are kept as nearly as possible at the temperature of boiling water.

The bottle is then cooled, the mixture transferred to a 12oz. distilling flask (the bottle washed out into the flask with 30 ccs. of water) and distilled till all but 20 ccs. have passed over. 60 ccs. more water are then added to the distilling flask and the liquid distilled till residue in flask commences to froth. The distillate is titrated with N/10 Baryta and calculated to amylic alcohol.

65. DRUGS-

Chloroform.—Method described in Allen's Commercial Organic Analysis, 3rd edition, 1898, Vol. I., page 233.

# PRESERVATIVES IN FOOD.

Boric Acid.—In all cases to be detected by method described in "Aids to the Analysis of Food and Drugs," by Pearmain and Moor, 2nd edition, 1899, page 29, but determined as specified below :— Butter, Margarine, and Fats.—See Section 19 (c).

Liquids.—Alkalise, evaporate, char, powder, and treat by Gladding or Thompson's Methods (see "Food Inspection and Analysis," A. E. Leach, 2nd edition, 1909, pages 821 and 823).

Solids.—Powder and treat by Gladding or Thompson's methods (see above).

Formaldehyde.—In all cases to be detected by method described in "Food Inspection and Analysis," A. E. Leach, 2nd edition, 1909, page 180, and determined by method described on page 181.

Salicylic Acid.—In all cases to be detected and estimated by method described in "Food Inspection and Analysis," A. E. Leach, 2nd edition, 1909, pages 825-7.

Benzoic Acid.—In all cases to be detected and estimated by method described in "Food Inspection and Analysis," A. E. Leach, 2nd edition, 1909, pages 828-32.

Sulphurous Acid.—In all cases to be detected and estimated by method described in "Food Inspection and Analysis," A. E. Leach, 2nd edition, 1909, page 834.

*Fluorides.*—In all cases to be detected and determined by the modified Blarez method, described in "Food Inspection and Analysis," A. E. Leach 2nd edition, 1909, page 835.

Saccharin.—In all cases extract with ether in acid solution, evaporate and test by sweet taste and conversion into salicylic acid. (See "Food Inspection and Analysis," A. E. Leach, 2nd edition 1909, pages 843-4.)

Mystin.—To be detected by Griess-Ilosvay and Urea-formalin test. (See Report to Local Government Board, No. 17, by Dr. G. W. Monier Williams.)

Approved by His Excellency the Governor in Executive Council, this 10th day of June, 1914.

BERNARD PARKER,

Clerk of the Council.