A COURSE IN DOMESTIC SCIENCE

1760 "ot to be taken 378.73

for

THE FIRST YEAR IN NIGHT SCHOOL.

by

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6-18-'08.

A Course in Domestic Science for the First Year in Night School.

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Manual training originated in Europe several years ago. At first it was used as a means of developing industrial skill.

Later, manual training was introduced into this country by certain broad minded men, who foresaw the advantage of such training. The European system has been modified and adapted to the needs of the American school, and educators feel that it is fulfilling the want that has become a permanent part of our school system.

Manual training carried through a course of study means more than the training of the hand. It means the development of every faculty.

It is the purpose of this paper to give a brief outline for a years work in Domestic Science, to discuss each lesson, and to give the recipes which will be used throughout the year.

The work is to be taught in the High School, therefore chemistry, higher botany, physics and physiology may be used with the cooking.

Lesson 1.

I Directions for aprons, towels, and holders.

II Laboratory Rules.

Lesson 2.

I Housekeepers rules.

II Dish washing rules

III Rules for washing dish towels.

Lesson 3.

I Utensils.

1. Qualities of an ideal.

2. Materials used.

3. Qualities of each.

Lesson 4.

I Range

- 1. Definition.
- 2. Essential parts.

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- 3. Use of each.
- 4. Accessory parts.

II Fuels.

- 1. Definition.
- 2. Kinds.

3. Qualities of each.

III Rules for building a fire.

IV Practice Work.

1. Sew name on towel.

2. Sugar syrup.

Lesson 5.

I Theory--Food.

1. Definition

2. Classification.

II Practice Work

Hoarhound Candy

Lesson 6.

I Theory--Water.

1. Composition.

2. Source

3. Distribution.

4. Purity with respect to source.

5. Classes of impurities.

6. Purification.

a. Distillation.

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b. Filtration.

c. Boiling

d. Adding chemicals.

e. Boiling and filtration.

II Practice Work.

1. Peanut Brittle.

2. Boil water.

Lesson 7.

I Theory--Sugar

1. Classification.

2. Source

3. Manufacture.

4. Value as a food.

II Practice Work.

1. Caramel Candy.

Lesson 8.

I Theory--Sugar (continued)

1. Digestion

a. Definition

b. Causes of.

2. Digestion of sugar.

II Practice Work.

1. Pennucci.

Lesson 9.

I Theory--Starch

1. Classification.

2. Source

3. Manufacture.

4. Value as a food.

II Practice Work

- 1. Boiled potato.
- 2. Riced potato.
- 3. Mashed potato.
- 4. Baked potato.

Lesson 10.

I Theory--Starch (continued)

11 Digestion

II Practice Work

White Sauce

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Creamed onion.

Lesson 11.

I Written review

II Practice

Scalloped vegetable

Bread Crumbs

Buttered Crumbs

Lesson 12.

I Theory--Vegetables.

1. Characteristics.

2. Parts used.

II Cellulose

1. Source

2. Value of

3. Digestion of

III Practice Work

1. Cream of pea soup

2. Crisped Crackers.

Lesson 13.

I Theory--Gocoa.

- 1. Source
- 2. Description of tree.

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- 3. Mode of gathering.
- 4. Manufacturing.
- 5. Composition.
- II Chocolate
 - 1. Composition

2. Difference between

a. Baker's chocolate

b. Sweet chocolate

d. Cocoa.

III Practice Work.

1. Cocoa

2. Chocolate Corn Starch Mold.

Lesson 14.

I Theory--Cereals.

1. Belong to what class of plants

2. Part of plant used.

3. Kinds.

4. Relative food value.

II Practice Work

1. Cream of wheat with figs.

Lesson 15.

- I Theory--Review.
- II Practice Work

1. Rice and raisins.

Lesson 16.

I Theory--Fats.

- 1. Classification.
- 2. Source.
- 3. Use to the body

4. Physical characteristics.

Color, odor, taste.

Melting point

Solubility

Emulsification.

II Practice Work.

1. Apple Pie.

Lesson 17.

I Theory--Fats (continued)

1. Review of last lesson.

2. Digestion.

Lesson 18.

I Theory--Proteid.

1. Names and where found.

2. Some typical proteid foods.

3. Composition

4. Necessity of

5. Action of heat on.

II Practice Work.

1. Soft Custard

Lesson 19.

I Theory--Proteid.

1. Digestion of

II Practice Work.

1. Caramel Custard.

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Lesson 20.

I Theory--Eggs.

1. Kinds used as food.

2. Structure of egg

3. Composition

4. Tests for freshness.

5. Why eggs spoil

6. Value as a food.

II Practice Work.

1. Soft cooked egg.

2. Omelet.

Lesson 21.

I Theory--Review.

II Practice Work.

1. Baked Custard.

Lesson 22.

I Theory--Milk.

1. Composition.

a. Water

b. Mineral salts

c. Fats

d. Carbohydrates.

e. Proteids.

Action of heat

Contamination of

Value as food.

II Practice Work.

1. Junket Pudding.

Lesson 23.

I Theory--Milk (continued)

1. Digestion.

II Practice Work

1. Poached egg in milk on toast.

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Lesson 24.

I Theory--Cheese.

1. Composition

2. Manufacture.

3. Nutritive value

4. Digestibility.

II Practive Work.

1. Cheese Souffle.

Lesson 25.

I Theory--Meat

1. Kinds used.

2. Composition

3. Structure

4. Cookery of

5. Nutritive value.

II Practice Work.

1. Pan broiled Steak.

Lesson 26.

I Theory--Leavening Agents.

1. Difinition

2. Reasons for use.

3 Kinds

a. Air

(1) Methods of incorporating

b. Soda (1) Source

- (2) Acids used with
- (3) General rules for use.

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II Practice Work

1. Gingerbread

Lesson 27.

I Theory--Leavening agents (continued)

1. Baking Powder

a. Definition

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b. Kinds according to composition

- . c. Use
 - d. Action of baking powder
 - e. Care

II Practice Work

1. Baking Powder Biscuits.

Lesson 28.

I Theory--Yeast

- 1. Nature
- 2. Growth
- 3. Conditions necessary
- 4. Manner of reproduction
- 5. Food necessary
- 6. Result of growth
- II Practice Work
 - 1. Yeast.

Lesson 29,

I Theory--Bread.

1. Good bread depends upon

a. Flour

- b. Yeast
- c. Manipulation
- d. Baking.

2. Tests for good bread

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II Practice Work

1. Bread

Lesson 30.

I Theory--Review

II Practice Work

1. Pop overs.

Lesson 31.

I Theory-Tea

1. Source

2. Growth of plant

3. Part of plant used

4. Varieties depending on part of plant.

5. Kinds

a. Green

b. Black

6. Composition

7. Method of making.

a. Object to be attained

b. Water used

c. Harmfulness

II Coffee

1. Source

2. Description of coffee bean

3. Kinds.

4. Nutritive value

III Practice Work

1. Tea

2. Coffee

	Lesson	32.	
			I Rules for serving.
			II Practice Work
		• •	1. Set table.
	Lesson	33.	Prepare and serve a breakfas
	Lesson	34.	Clean up laboratory.
	Lesson	35.	General review.
	Lesson	36.	Examination.

Lesson 1. (To be printed and handed to the pupils. Directions are to be read and explained in class)

<u>Aprons</u>. Material white cotton, or linen without figure. Long cloth is good. No trimming.

Style--Seven gore front, length of dress, sides are two straight breadths, fitted over hips with two darts on each side. The bib at the waist line is $4\frac{1}{2}$ inches and at the top $8\frac{1}{2}$ inches, height 8 inches. The straps cross and button and are $1\frac{1}{4}$ inches wide. Sew a button to the right at side for towel and holder. The apron must be marked with indelible ink. Each girl must have three aprons. Takes eight yards of material, one yard wide.

<u>Towels</u>. Material, blue and white, $\frac{1}{4}$ inch check, tumbler toweling. Length $\frac{3}{4}$ yd. A loop 3 or 4 inches long of white tape. The name should be on towel or tape. Each girl must have four towels.

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12.

Holder. Material--Blue denim, blue woolen tape to match. Style--Round, 6 inches in diameter, bound with blue tape, leaving $\frac{1}{4}$ yard for string. Button hole in end to fasten to apron. $\frac{1}{4}$ yd. denim, 1 yd tape. Name on white tape in middle of holder.

Laboratory Rules. (dictated)

1. Wash the hands thoroughly on entering the laboratory and be sure the nails are clean.

2. Do not lay handkerchiefs, hats, or wraps on the laboratory tables.

3. No loud talking, laughter, singing or whistling is permitted.

4. No student may leave the laboratory without permission.

5. When beginning to work, take out desk board and plate to hold soiled knives, spoons, etc.

6. Collect all utensils and supplies needed for work.

7. Leave all doors closed, pans and jars covered, and supply table clean.

8. Keep desk in order during time or working.

9. Do not make work for yourself by using more utensils than are necessary.

10. Have all material ready for use before beginning to put them together.

11. Use crockery bowl and wooden spoon for mixing cake, muffins, etc. A tin dish pan or spoon is liable to discolor the mixture.

12. When eggs and milk are used, rinse out the bowl in which the eggs have been beaten, with some of the milk.

13. All water should be poured through the sink strainer, and garbage removed to garbage pail.

14. Any utensil to which food has adhered should be put to soak as soon as the utensil has been emptied.

15. Any oily útensil should have a small quantity of hot water and washing soda put into it as soon as emptied. 16. At close of lesson.

- a. Clean all utensils used and return to proper place.
- b. Clean match holder and soap dish.
- c. Scrub desk board, desk, bunsen burner and tripod.
- d. Wash dish towel and dish cloth and hang straight on rack.

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- e. Wash and scour dish pan.
- f. Arrange top of desk and set stool in position.

Lesson 2.

- Housekeeper's Rules (Dictated)
- 1. Build the fire
- 2. Brush and blacken the range.
- 3. Fill the teakettles.
- 4. Brush around the range.
- 5. Get out the days supplies.
 - a. Fill butter, sugar and flour jars.
 - b. Place bowl of water and clean cloth on supply table.
 - c. Take out special supplies for the days lesson.
- 6. During lesson, keep supply table in order, teakettles filled,

and fire replenished.

7. At the close of lesson.

a. Put away the supplies.

- b. Scour the supply table.
- c. Wash general utensils.
- d. Empty and polish teakettles
- e. Clean sinks.
- f. Brush stove
- g. Leave laboratory in perfect order.

8. Clean refrigerator once a week.

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Dish Washing Rules

General Rules.

- 1. Gather dishes together, remove waste, and sort.
- 2. Rinse in clean, cold water.
- 3. Fill two dish pans, one with hot soap suds, the other with clear hot water.

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- 4. Wash in the following order, glass, silver, china, wooden ware, cutlery, granite, tin and steel.
- 5. Wash in hot soap suds.
- 6. Rinse in clear hot water.
- 7. Wipe and polish with soft dry towel.
- 8. Change water frequently.

Specials Rules for Glass.

1. Ammonia, washing soda or alcohol may be used in place of soap, 1 tsp to 1 qt. of water.

2. Repeated use of strong alkalies, will dim the lustre of the glass.

3. A soft brush is required to clean cut glass.

Silver.

If washed carefully it will not often require other cleaning,
 To clean silver,

a. Wash in hot soap suds and dry.

b. Wet whiting with water, ammonia or alcohol.

c. Apply to silver with soft cloth and rub well.

d. For chased silver use a soft brush.

e. Spread on heavy paper to dry.

- f. Rub whiting from silver with clean soft cloth.
- g. Wash according to previous rules.

3. Silver should be kept by itself, as hard substances will

scratch it. Rubber will tarnish it.

Wooden Ware.

- 1. Wash with clean cloth in clean cold water.
- 2. Rub the brush on sapolio and scour with the grain of wood.

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3. Wash according to previous directions.

Cutlery

- 1. After washing may be scoured with a cork dipped in powdered sapolio.
- 2. Should be washed immediately afterwards and wiped dry.

Enamel and Tin ware ...

- 1. In case of slatric, scour as cutlery.
- 2. Never apply the bar of sapolio directly to the tin ware, as it scratches the surface and causes it to rust.
- 3. Never dry over heat as it discolors the tin.

Steel ware.

1. Apply sapolio directly to the utensil and scour inside and out until bright.

Rules for Washing Dish Towels.

- 1. Wash in hot soapy water.
- 2. Rub between the hands until all spots are removed.
- 3. Scald with clean hot water.
- 4. Rinse in clear, cold water.
- 5. Wring out, shake, pull straight, hang evenly to dry.

Lesson 3.

Utensils.

An ideal utensil should be light, easily cleaned, durable,

non corrodible and inexpensive.

The materials used are tin, iron, aluminum, copper, enamel

ware, earthen ware.

Tin is not durable, fairly easily cleaned, inexpensive, corrodible, light.

> Iron--durable, not easily cleaned, corrodible, heavy. Aluminium--light, durable, corrodible, inexpensive, fairly

easily cleaned.

Copper--durable, non corrodible, heavy, expensive hard to clean. Enamel ware--The best enamel ware, if handled with care, is

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dirable. Easily cleaned, non corrodible, light, expensive.

Enamel ware--durable, light, easily cleaned, expensive, non-

corrodible.

Enamel ware is probably the best of all utensils.

Lesson 4.

Range.

A range is a hollow steel box with different apartments used for cooking and baking.

The essential parts of a range are the fire box, the grate,

dampers, stove pipe and ash pan.

(Take the children to the stove and show and explain the parts

of the range).

Fuels.

A fuel is a substance which produces by combustion both heat

and light.

The kinds of fuels are:

1. Solids--wood, coal (hard and soft), peat and charcoal.

2. Liquid--kerosene, alcohol.

3. Gas--natural and artificial.

Soft wood kindles quickly, clean.

Hard wood, higher kindling point, quite clean.

Liquids, clean, dangerous.

Gas, clean, easily lighted, convenient.

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Rules for building fire.

(Dictated and explained).

a. Close all openings in the stove and open the chimney draft.

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b. Shake from fire box all ashes and cinders.

c. Open fire box and cover grate with crumpled paper.

d. Lay on small pieces of kindling and then larger pieces.

e. Lay in small lumps of coal.

f. Brush and blacken stove.

g. Light from below.

Lesson 5.

Food

Food is anything which when taken into the body forms tissue, repairs waste or supplies energy.

Foods are classified as organic and inorganic. Organic foods are those foods which have had life. Inorganic foods only help to support life. (Work this classification out in class with the children).

1	Urganic		Inorganic
Fats Butter Fat meats Oils Cream Lard	Proteid White of eggs Lean meat	Carbohydrate Sugar Starch Cellulose	s Mineral matter Water, salt
Eg Ch	s B eese C	ereal Ver	getables Lit
		Milk	

Lesson 6.

· Water.

Water is composed of hydrogen and oxygen.

Water is first taken up from the earths surface as vapor and in passing through the upper layer of air is condensed, and falls to the earth in drops. It sinks through the ground or is taken up again immediately or is taken up again immediately or is carried to the ocean where it is taken up.

Water is distributed over the earth's surface in oceans, rivers, lakes, springs, brooks, ponds and wells.

Rain absorbs the gases and frees the air from dust particles. The last of the showers is pure, or nearly so. In large rivers, the water in the middle is purer than that near the bank, because the refuse lodges near the shore. Rivers flowing through low places are impure. Water sinking through the different strates is purified and we get it in the form of deep wells, hence deep wells are purest. Shallow wells catch all surface water, and are not healthy.

The classes of impurities are dead organic matter, bacteria, mineral salts and gases. Some or all of these are found in all water.

Water when pure should be free from odor, color and taste.

Water may be purified by filtration, adding chemicals, boiling, boiling and filtration and distillation.

(Each of these methods are to be discussed in class). Distillation removes all of the impurities.

Addition of chemicals leave bacteria harmless and precipitates some of the mineral salts.

Boiling kills bacteria, removes some of the gases and part of the mineral salts.

Filtering removes mineral matter not in solution.

Lesson 7.

Sugar.

Sugar is classed as a carbohydrate. It contains the elements, carbon, hydrogen and oxygen.

Sugar occurs in all live plant tissues, being the form in which food is transported in the plant.

The source of sugar is from the stems of plants, as the sugar cane and from roots as the beet. It is also obtained from the sap of the maple. 854

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Manufacture of Cane Sugar.

The cane is pressed by putting it through hot rollers. The juice is boiled and the crystals are taken from the top. The lower part is molasses. The crystals are washed and boiled again several times. The different grades of brown sugar are the crystals after these washings.

The crystals keep getting lighter and lighter. At last the crystals are put through charcoal or powdered bone, which whitens or purifies them. It is then put on the market.

Sugar furnishes heat to the body and is also stored as fat.

Lesson 8.

Digestion is the process of changing food in the alimentary canal into products capable of being used by the tissues.

Digestion is accomplished by ferments and enzymes.

There are organized and unorganized ferments.

The organized ferments are those which change the substances but are not changed themselves.

An unorganized ferment is an enzyme and the changes are produced by the action of a living cell.

Digestion of Sugar.

Sugar is first dissolved in the mouth. It is then taken to the stomach but there is no action takes place. It then passes on to the small intestines. There it is acted upon by an inverting enzyme found in the intestine which converts it into simple sugars.

Lesson 9.

Starch.

Starch is classified as a carbohydrate. It is found in vegetables in the seeds, roots, cereals, grains and tubers. It is found in the plant as a surplus carbohydrate that is stores away for future use.

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Starch is prepared by grinding some of the vegetable matter that contains it in abundance and mixing it with cold water. In this way the cells containing the starch are broken up and when washed with water the starch grains settle to the botom.

The starch grains are microscopic. They differ in size and shape in different kinds of starch.

The outer portion of the starch grain is insoluble in cold water but in boiling water the membrane bursts and the interior of each grain is dissolved in the water, forming a thick grimmy solution which when cool forms a pasty mass.

Starch furnishes heat and energy to the body. The starch grains swell and burst when heated to 72 degrees C. It is this rupture of the starch grains that we seek to bring about by the cookery of vegetables.

Starch uncooked and in its insoluble state is not digested by the human stomach.

Lesson 10.

Digestion of Starch .

In the mouth the plyatin of the saliva acts on the starch converting it through a series of dextrius into maltose. In the stomach there is no action. In the intestine the amylopsin of the pancreatic juice converts the starch that the plyatin did not act on through a series of dextrius into maltose. In the intestinal juice there is an enzyme which converts maltose into simple sugars.

Lesson 11. Written Review

A review is given here to bring out the weak points in the work. Lesson 12.

Vegetables.

Vegetable foods contain a large proportion of carbohydrates. It is this peculiarity that distinguishes them from animal foods. They contain an abundance of sugar and starch and some fat, proteid, cellulose, water and mineral salts. They contain a large amount of water.

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The different parts of the plant used are, root, tuber, stem, leaf, and the fruit.

Cellulose.

The walls of cells and the framework which holds all the cells together are composed of cellulose. It is the woody fiber of stalks of grain, the membrane which envelops the grain, the husks, skin of seeds, rinds and cores.

Cellulose belongs to the carbohydrate group.

Cellulose gives bulk to the intestinal contents. Cellulose has no nutritive value.

Digestion of

Cellulose is first softened in the mouth and stomach. It is then passed on into the small intestine and is there acted upon by bacteria and is changed into carbon dioxide and marsh gas. These gases are eliminated from the body. It is hard to digest and a great deal of it goessthrough the body unchanged.

Lesson 13.

Cocoa.

The cocoa is obtained from the fruit of the theobromo cocoa. The fruit resembles a small cucumber, embedded in the pulp of the fruit are many seeds. These seeds, or the cocoa bean, are separated from the pulp and placed in heaps to ferment. They are then roasted, which makes them brittle and loosens the husk. The seed is then split in halves, these are called cocoa nibs. These nibs are either sold or are treated to further processes, as being ground between hot rollers. This process melt the fat contained and this cocoa is run into moulds. It is then ground into powder.

The beans after being husked and dried, contain fat and theobromine, besides a little albumin starch, pigment and salt.

The process of fermentation greatly improves the flavor, giving the seeds a milder and more agreeable flavor. The unfermented seeds are kept

to be taken

in a cool moist place while fermentation proceeds.

The fruit is gathered by means of a long rod, at the end of which is a semi-circular knife for cutting through the stalk. The fruit ripens and is gathered throughout the entire year.

The flowers of the plant are a reddish color and for one thousand flowers there is one ripe fruit. The fruit is a golden yellow in color.

Chocolate.

Chocolate consists of ground cocoa from which the fat has not been removed, mixed with white sugar, starch and flavoring, such as vanilla often being added.

Chocolate contains about 45 per cent. of cane sugar and 20 per cent. of fat.

Baker's chocolate has no sugar or starch in it.

Sweet chocolate has the addition of sugar and perhaps some starch. Theoretically cocoa is valuable as a food, but practically it is not, the reason is that so little can be taken at a time. Cocoa does not effect the nervous system as does tea and coffee.

Lesson 14.

Cereals

Cereals belong to the family of grasses. The seeds are used as food. The cereals are wheat, corn, oats, rye, barley, buckwheat and rice.

Cereals require quite a bit of cooking at a high temperature because they contain starch.

The general composition of cereals is proteids, carbyhydrates, fats, mineral matter and water.

Corn is rich in fat, wheat in proteid, oats, in mineral salts and rice in starch.

Owing to the large amount of carbohydrates, cereals should not be eaten alone, but should be eaten with some other foods rich in fat and proteid. 859

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Lesson 15. Lesson 16.

Fat.

Oral review

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Fat is composed of three elements, carbon, hydrogen and oxygen. Fat is obtained from the fat of meats, cream of milk, from different oils and vegetables.

Fats are either solids or liquids. The soiled fats may be changed to oil by the slight accession of heat.

The chief use of fatty food is to furnish energy, serve as a covering and protection in the body, and to serve for the storage of energy.

The principle animal fats and fatty foods are butter, cream, suet, lard, oleomargarine, fat of beef, mutton, pork and bacon, fish and cod liver oil.

Vegetable fat and fatty foods are derived from seeds, such as olive oil, cotton-seed oil and nuts.

Fats are colorless, odorless and tasteless. They melt below the boiling point of water. Fats are not soluble in water.

Fats give an emulsion when shaken with water but this is not persistent. If a scap is added to the solution an emulsion will be formed which will be permanant.

A soap solution plus a fat equals an emulsion.

Lesson 17.

Review of Fats.

Digestion of fat.

There is no change in the mouth or stomach. In the intestines an enzyme has the power of splitting fat into fatty acid and glycerin. Fat is absorbed as these two things and as it passes through the walls of the intestine, it changes to body fat.

Lesson 18. Proteid.

Albumén----egg Myosin----meat Casein----milk

Gluten----cereals

Legumin-----peas, beans.

Proteids are composed of carbon, hydrogen, nitrogen, oxygen and sometimes sulphur.

The white of egg and milk are typical proteid foods.

Proteid is necessary as a food as it builds muscle tissue.

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Heat coagulates proteid. If heated to a high temperature, the proteid tends to shrink and harden, thus becoming insoluble and indigestible.

(Show the effects of heat on proteid by the egg experiment)

Lesson 19.

Digestion of Proteid.

There is no action in the mouth. In the stomach the pepsin of the gastric juice in the presence of hydrochloric acid, acts on the proteids.

The action that takes place is that proteid is changed to proteases and peptone.

In the intestines the trypsin of the pancreatic juice acts on the proteid. The action that takes place is that proteid is changed to proteoses and peptones.

Lesson 20.

Eggs.

Hen's eggs are the usual form used as food. Other kinds that are used are turkey, goose, fish, turtle, ducks guinea and in some countries little birds eggs are used.

Hen's eggs vary greatly in size and weight. The average weight of an egg is two ounces.

An egg consists of three parts, white, yolk, and the shell.

The white consists of a solution of proteid enclosed in millions of cells. The proteid of egg white is called albumin.

When the white is beaten up the walls of the walls of the cell are ruptured and the proteid escapes. This increases the digestibility of the whites. It also contains a trace of fat and a small portion of salts. 860

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The yolk contains principally fat and a larger proportion of salts than the white. Around the yolk of the egg is a thin membrane. The nucleus is found in the yolk. From the ends of the yolk is a cork screw like filament composed of albumin.

The shell consists almost entirely of carbonate of lime. It is porous and the air penetrates ethe egg causing it to spoil.

Eggs are preserved by excluding air from entering through the shell. This may be done by covering the shell with oil, gum, or insoluble lime compounds. They may be packed in bran or salt with small end down.

A fresh egg should sink in a ten percent. solution of salt water. Bad eggs will float. Eggs that are kept, gradually lose water by evaporation and become lighter.

Eggs are an almost perfect food, but should not be used exclusively as a food. They should be used with a carbohydrate food.

The digestibility of food depends on the form in which they are taken. Cooked lightly they are more easily digested.

Lesson 21. Written review.

Lesson 22. Milk

Milk is composed of carbohydrate, fat, proteid, water and mineral matter.

The principle proteid of milk is the substance called casein. The other proteid of milk is called lact-albumin. Lact-albumin differs from casein, in that it coagulates when milk is boiled. (Heat milk and show children).

The carbohydrate in milk is milk sugar. It differs from cane sugar in the degree of sweetness, cane sugar being the sweeter.

Fat exists in milk in the form of an emulsion. The amount of fat in a milk varies greatly with the needs of the animal for which the milk is designed. The milk of animals which inhabit cold climates contains a higher percentage of fat. 861

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When milk is allowed to stand the fat globules run together and float on the surface as cream.

There is about seven per cent. of mineral matter in milk. These are used in building up bone and tissue.

There is from 87 to 88 per cent. of water in milk.

Milk is an opaque, yellowish white fluid, slightly alkolin, faintly sweet taste, no noticeable odor.

Upon heating milk a scum will form on the surface due to the coagulation of the lact-albumin.

Milk as it is obtained from a perfectly clean, healthy cow, is pure, but it may be contaminated by some organism if the cow is diseased by milk vessels, from the dairy man, or by the air.

Milk contains all five food constituents in more nearly proper proportion than any other food.

Milk is not a perfect food as it contains too much proteid for the amount of fat and carbohydrates.

Lesson 23.

Digestion of Milk.

There is no change in the mouth. In the stomach it is coagulated by rennin. In the presence of the hydrochloric acid, the pepsin changes the curd to peptones and proteoses.

The unchanged milk goes to the small intestine and is there curdled by a rennet ferment in the pancreatic juice. The curd is changed to proteoses and peptones by the enzyme trypsin.

The fat is acted upon by the enzyme trypsin.

Lesson 24.

Cheese.

Cheese consists essentially of the casein and fat of milk. It is prepared in two ways. (1) The milk is allowed to clot under the influence of rennet. If pure milk is so treated, the resulting cheese will contain most of the fat.

(2) The casein may be precipitated by allowing the milk to sour. In this case there is but little of the fat in the cheese.

Manufacture.

Cheese goes through seven processes before it is put on the

market.

The first period is the setting. The milk is put into large vats and is heated. The rennet is then added. Rennet is most active at 98 to 100 degrees F. At these temperatures milk would coagulate very quickly but the fat is liable to separate, so the milk is warmed to 82 degrees. F. At this point coagulation is fairly rapid.

Cheese is then tested for ripeness.

The rennet should be mixed with water, about twenty to fifty times its own bulk. In this way it can be evenly mixed in the milk. The milk should coagulate in from 10 to 15 minutes and be ready for the knife in about 35 minutes.

When solid enough, the finger if inserted obliquely and then raised, the curd will break smoothly. When the curd will do this it is ready for the knives. There are two knives and the curd is cut up in 3/8 inch cubes. The whey begins to come to the top and the cubes sink. Heat is applied and a film is formed about each cube.

The cubes are stirred very slowly and just enough to keep them going together. Some of the whey is drained off and the cubes are heated until they are quite solid. They are then put on the sides and drained. After this the cubes are ground, the salt is added and then it is ready for pressing.

The cheese is put in a press and is kept there for over a day, the press being made tighter every few hours.

The bindings are seamless and are fixed in the press. About an hour after it has been put in the press, it is taken out and bandages are straightened and washed. This makes a hard cover on the cheese.

After the cheese has been pressed it is put on shelves to cure. It is turned quite often so it will not lose its shape. During this time a fermentation takes place. It is then put on the market.

Nutritive Value.

Cheese has a high nutritive value. It contains about 33 per cent. of water, the remainder being proteid and fat. There is about one half as much nourishment in beef as there is in cheese.

Digestibility.

The fat of the cheese forms a water proof coating, which prevents the access of the digestive juices to the casein. Therefore cheese is not easy of digestion.

The larger the lumps of cheese, the slower the access of the digestive juice, therefore the importance of careful chewing.

It is more easily digested if the cheese is grated or dissolved and then mixed with some other food.

Lesson 25.

Meat

The kinds of meat most common in use are beef, pork, veal and mutton. Meat is composed of muscular fibers, bound together by connective tissue. If examined with the microscope, these fibers would be found to be composed of bundles of microscopic tubes.

The fibers vary in length in different kinds of meat. Sometimes they are short as in the breast of chicken and at other times they are long as in the thigh. The shorter the fiber the more tender and more easily digested the meat.

The walls of the tubes consist of a proteid substance while the connective tissue which holds the fibers' together is composed of collagen.

Embedded in the connective tissue between the fibers is fat.

The contents of these muscle fibers consists of water holding in solution proteid, salts and extractives. The extractives have no nutritive value but give meat a characteristic taste.

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The proteid which the juice contains has the property of clotting after death, the hardening of the muscles, which results, being known as rigor moitis.

There are two methods of cooking meats.

1. The meat is exposed to intense heat long enough to sear it and to close the little tubules. It may then be plunged into boiling waterm boil for a short time and then lower the temperature. It may be cooked by dry heat in the oven.

2.To draw out the juices the meat is put in cold water and the temperature is gradually raised.

Nutritive Value.

The principle mutritive constituent of meats is proteid. Therefore meat is one of the best sources of building material for the body.

Lesson 26.

Leavening Agents.

A leavening agent is a gas or something which produces a gas. Leavening agents are used for taste, appearance and to make a dough more easily digested.

The kinds of leavening agents are air, soda, baking powder and cream of tartar.

And may be incorporated into a substance by beating and whipping the substance.

Soda

Soda does not exist as such but it is manufactured from common salt by saturating it with ammonia and carbon dioxide.

Some of the acids soda is used with are--the acid in sour milk, in molasses, in cream of tartar.

General formula for use,

1 tsp soda to 1 c sour milk,

h tsp soda to h c molasses,

1 tsp soda to 2 tsp cream of tartar.

Lesson 27.

Baking Powder.

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Baking powder is a mixture of powders, which with the addition of heat and moisture gives off gas to leaven bread stuffs. The majority of baking powder consists of a mixture of cream of tartar and baking soda. Alum is also used with soda.

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Those powders made with cream of tartar are called tartrate powders and those with alum, alum powders.

Baking powder when pure should consist only of cream of tartar and soda, with a little flour added to keep it dry.

When mixed with water and dough, the soda is split by the acid tartrate, liberating carbon dioxide.

Care of Baking Powders

Baking powder should be closely covered.

Never put a wet spoon in the powder.

Keep out all moisture.

Percentage composition of pure baking powder

60 %, cream of tartar

30 %, baking soda

10 %, fine starch.

Lesson 28.

Yeast is a microscopic plant belonging to fungi. A single plant is a round oval one celled microscopic body which reproduces either by sending out buds which break off or by forming spores which will grow into new plants under favorable conditions.

Yeast grows only in the presence of moisture, heat and nutritive material. If the surrounding moisture is not plentiful, the substances absorb that which already exists in the yeast cells and prevents them from working.

Sugar must be present but the yeast will not work in a more than thirty five per cent. solution. Nitrogenous material must be present or the yeast cannot reproduce. Yeast grows better in the presence of free oxygen and at a temperature of about 77 to 95 degrees F.

The results of the growth of yeast is that the yeast converts the sugar into alcohol and carbon dioxide, at the same time the yeast grows and spreads through out the dough, giving off CO which forces itself through the 2 dough causing it to become light.

Lesson 29.

Flouer is one of the most used constituents of our food. It should be white with a faint yellow tinge. The ordinary way of telling the color of flour is by compressing a small quantity in a slab which has been wetted and allowed to dry. If the flour has a yellow tint, it is the high grade flour. If it has a gray tint it is of the low grade.

The principle constituents of flour are fats, starch, cellulose, and other sugars, proteid consisting of gluten and mineral matter.

The gluten is of the greatest importance because it gives the flour the property of rising into a light spongy loaf.

The baker ordinarily mixes his dough with water. Sometimes milk is used in place of water. As yeast develops best at a temperature of about 77 to 95 degrees F, the material should be at least luke warm. If all portions of the dough are to be areated by the yeast the latter must be thoroughly mixed through the dough and as oxygen saids the growth, all parts should be exposed. This is accomplished by kneading.

The greatest cleanliness should be observed in kneading bread. Where bread is made in small quantities, the use of hands may be tolerated, but not in wholesale bakeries where the kneading of bread is a violent exercise and the worker is unable to take his hands from the dough long enough to wipe the sweat from his brow.

32.

To shape the loaves, divide the dough into as many parts, each part being large enough for a loaf. Knead until smooth and if possible avoid a seam in the under part of the loaf. Roll in both hands to lengthen, being careful to have it of uniform thickness.

The dough is put into an oven and the change which it undergoes is essentially the same. It goes in a heavy uniform mass and comes out a light body of increased volume with a crisp dark exterior, the crust, the spongy interior the crumb. When first put into the oven, the yeast continues working but a temperature of 158 degrees F. kills it. The gas still expands and forcing its way outward enlarges the loaf and gives it a spongy appearance.

Bread is baked to kill the ferment, to make the starch soluble, to drive off the slochol, and to form a brown crust with a pleasant flavor. Bread should be baked in a hot oven. If the oven is too hot, the crust will brown quickly and prevent further rising. The loaf should continue rising for the first fifteen minutes, then it should begin to brown and continue browning for the next twenty minutes. The last fifteen minutes it should finish baking. If a tender crust is desired brush the crust with melted butter. Remove at once from the pan and place right side up on a wire bread or cake cooler. If a crisp crust is desired, allow the bread to cool without covering. If a soft crust is desired cover with a towel during cooling. When cool put in a tin box or stone jar and cover closely. Do not keep in a cloth. A cloth absorbs moisture and transmits aniunpleasant taste.

Good fresh bread has a crisp crust which breaks with a snap and an elastic even crumb, which springs back in to shape after being pressed.

Lesson 30. Review lesson

Lesson 31.

The tea shrub grows in latitudes of 15 to 40 degrees The plants are grown from seeds. It is pinched off so that it grows bushy and not high. The leaves at the top of the plant are the best and most expensive

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They decrease in value as they go down the stem. The leaves are dried and roasted, The flavor depends on this. Just how the process is carried out is not known.

The black and the green teas are the same plant, but there are several species, induced by the climate and the soil. Green tea has a greater effect on the nervous system than the black.

May and June are the months of picking and it is done by the women.

The active substances in the tea are volatile oil, theime and tannin. The oil contains the flavor but it is very injurious.

The theime gives to the tea its power of lessening the waste of the tissues. It is composed of colorless crystals which have no smell and have a bitter taste.

Tea is less stimulating than coffee. Tea contains a great deal of tannic acid.

In making tea, the water must not be too hard or too soft. It should be freshly drawn, freshly botled and just brought to a boil. The object is to get as much of the essential oil and as little of the tannic acid as possible. If teas is left standing in water more than three minutes it becomes bitter.

Coffee

Coffee is the seed of an evergreen shrub which grows from 6 to 12 ft. high and the stem is six inches to 15 inches in circumference. When the blossom falls off, a small green fruit grows in its place. As it ripens, it gets red and is good to eat. It is like a cherry but instead of the stone inside, there is a bean which we call coffee. As it becomes riper it becomes a dark brown. There is one berry in each pod, which splits into two parts.

Raw coffee has little scent but has a bitter taste. When the coffee is roasted the bulk is increased and the weight diminished.

There is an acid in the coffee which stains green. There is also caffeine which corresponds to theime in tea.

Coffee has no nutritive value but it acts as a stimulant.

Lesson 32. Serving

1. Have tray.

a. If the waiter is skillful, the tray may be omitted, except for the removal of small clean silver and cups.

> b. Substitute for tray a clean napkin to protect the hand. 2. Placing.

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a. Place dish from right side with right hand, removing the dish in front of guest with left hand from either left or right side.

b. If host or hostess is serving, stand at the left and replace the clean dish with left hand.

c. If hostess is serving, serve guests at right first, then all on that side of table.

d. If host is serving or the serving is from a side table, the hostess should be served first.

3. Passing.

a. Pass to left, holding dish in left hand or both hands,b. Hold dish as close as possible to table without

touching it.

4. Pouring water.

a. Draw the glass to edge of table, lifting it slightly, fill and replace. Be careful not to touch the glass at the top.

5. To remove.

a. Remove all food.

b. Soiled china, glasses and silver.

c. Clean glasses, china and silver.

d. Remove everything that pertains to finished course.

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Essentials for laying a table.

1. Consider the table in regard to cleanliness, simplicity, good taste, fitness, symmetry and balance.

2. Consider number to be served in regard to size of table.

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3. Dust table with damp cloth and polish.

4. Lay silence sloth, pin up edges square with safety pins and

fit over table.

5. Lay cloth.

a. Lengthwise

b. Center fold up and in center of table.

c. Smooth and even.

d. Should hang nine inches over.

6. Lay doilies and carving cloth.

7. Lay covers.

a. Definition -- All utensils that will be needed by one

person during one meal.

b. Allow twenty to twenty four inches to each individual.

c. Required utensils.

- (1) Silver should be placed 2 inches from edge of table.
- (2) Knives, forks and spoons to be placed in orderof use, from outside toward plate
- (3) Place knives at right of plate, blade toward plate.
- . (4) Place forks at left, times up.
- (5) Place spoon at right of knife, bowel up.
- (6) Never overcrowd table.
- (7) Place glass at tip of knife.
- (8) Butter plate should be placed at tip
 - of fork slightly to left.

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(9) Napkins.

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Place at left of plate

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Requisites of a good waiter.

Before a girl is an expert in waiting on table, she should learn

the following:

- 1. To stand straight
- 2. To step lightly and quickly.
- 3. To keep tidy. To have clean teeth, finger nails, and be free from perspiration.
- 4. To close a door without making a noise.
- 5. To take proper care of a dining room, pantry, silver, brass, glass and polished wood.

6. To handle silver and dishes in a quiet manner.

7. To carry dishes without having them touch the dress.

8. To remove crumbs.

- 9 To cut bread.
- 10. To dress salads

11. To make butter balls.

12. Make sandwiches.

13. A meal must not be announced until everything is in readiness.

14. Waitress should not leave the dining room until she is sure there is nothing more to be done.

15. Fill glasses just before the meal is announced.

16. Place butter after filling the glasses.

17. The head of the table is nearest the door.

Lesson 33.

Prepare and serve a breakfast.

Oranges and Powdered sugar. Cream of wheat with figs.

Poached eggs on Toast.

Coffee.

Lesson 34. Clean up laboratories.

Special work will be assigned to the groups.

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Lesson 35. General review.

Lesson 36. Examination.

Recipes (To be dictated)

Sugar Syrup

1 c sugar

1/8 c water.

Boil rapidly seven minutes. This is used for sweetening ices, punches and ice cream.

Hoarhound Candy

- 2 tbsp. water
- 2 tbsp sugar

tsp. pressed hoarhound.

Pour boiling water on hoarhound, let stand one minute, strain. Add sugar, boil to 192 degrees C. or until the liquid is a golden brown. Pour out and cut into squares while soft.

Peanut Brittle.

- 2 tbsp water
- 2 tbsp. sugar
- 1 tbsp. peanuts (chopped)

Add sugar to water and stir until it dissolves. Remove spoon and boil rapidly to 192 degrees C. or until the liquid is a golden brown. Add peanuts, mix thoroughly. Pour on the bottom of a tin pan. Press into shape, cut in squares before it hardens.

Chocolate Caramel.

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4 c brown sugar

1 square chocolate

1 tbsp butter

1 tbsp milk or cream.

1 tbsp molasses.

1/8 tsp vanilla.

Cook all ingredients together except the vanilla, having the heat moderate after boiling point is reached, to prevent scorching. Boil until the hard crack stage is reached. Remove from fire, add vanilla, pour immediately into shallow buttered pan. Cut in $\frac{3}{4}$ inch squares. Cool. Wrap in paraphined paper.

Penucci

불 c brown sugar 늘 tbsp. butter

1 tbsp milk.

3 drops vanilla

2 thep walnut meats.

Boil sugar and milk together without stirring to 113 degrees C. Remove from fire. Add vanilla. Beat until creamy. Add walnuts and pour quickly into buttered pan. Cut in aquares.

Baked potato

1 medium sized potato.

Scrub thoroughly in water with brush, pare a thin strip around lengthwise, place on pan in very hot oven, bake 45 to 60 minutes. When done roll in mapkin and twist until the skin bursts. Serve immediately.

Boiled potato.

1 potato, boiling water to cover.

1 tsp salt to every cup of water.

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Place in boiling salted water and boil 20 to 30 minutes according as to the size of the potato. As soon as done drain water, remove cover, shake over heat until dry. Serve immediately.

Riced Potato

1 potato, boiling water to cover.

to directions. Force through ricer into hot serving dish.

Mashed potato

Hot riced potato

1 tbsp butter

1 tps. cream or milk

Salt to taste.

Add butter, cream or salt to potato, beat with silver fork until light and creamy, pile lightly in hot dish, serve immediately.

Stuffed potato

1 baked potato

1 tps butter

1/8 tsp salt

1 tps milk or cream.

On removing from oven cut in halves cross wise. Scoop out inside, season and force through ricer, pile lightly into shells, set on baking sheet, set in oven, bake until a deligate brown.

Whate Sauce.

1 c milk

1 thep butter

1/2 tbsp flour

1 tsp salt

Mix flour and salt with equal quantities of cold milk to

a smooth paste. Scald the remainder of the milk in a double boiler, add flour and milk mixture to hot milk. Cook thirty minutes, stirring until thick. Remove from heat and stir in butter.

Creamed onion

1 medium sized onion.

1 cup white sauce.

Wash, peal, quarter onion, cook uncovered in boiling salted water until tender. When done drain off water, cover with white sauce. Serve immediately

Bread Crumbs.

Prepared by crushing and sifting.

Crushing may be done by grinding in a food cutter or rolling on a bread board. Sifting may be done with a Purce strainer. The sifted crumbs may be used in preparing scalloped dishes in bread fried food and for thickening.

Buttered Crumbs.

3 tbsp. crumbs.

1 tbsp butter

Melt the butter and stir in crumbs.

Scalloped Cabbage

1 c white sauce

1 c boiled cabbage

1 tbsp. buttered crumbs.

Cook the cabbage until tender in boiling salted water. Butter an individual baking dish, fill with alternate layers of cabbage and white sauce. Cover with buttered crumbs, bake until sauce bubbles. Crumbs should be brown over top.

Cream of Pea Soup.

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2 tbsp peas

1 c water

 $\frac{1}{4}$ c white sauce

Drain and rinse peas. Cook in boiling water until tender. Press through Puree strainer. Add pulp and liquid to hot white sauce. Reheat--beat with Dover egg beater. Serve.

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Crisp Grackers.

2 small crackers.

h tsp butter.

Spread butter on crackers, place on pan and brown in oven.

Cocoa

2 tsp cocoa.

1 tsp milk

12 tap sugar

2 tbsp water.

Mix cocoa and sugar, cook with boiling water until smooth and glossy, add the mixture to the milk which has been heated scalding hot. Mill thoroughly and serve with or without the addition of whipped cream.

Chocolate Corn Starch Mold.

1 c milk

1/8 square chocolate

1 tbsp sugar

12 tsp corn starch

Speck of salt

4 drops of vanilla

Heat chocolate in a double boiler. Mix corn starch, sugar and salt thoroughly. Add enough milk to make a smooth paste. Add the remainder

of the milk to the chocolate in a double boiler. Bring to a scald. Stir corn starch mixture into the hot milk, stir until it begins to thicken. Cook 20 minutes, pour into molds. When cold unmold and serve with sugar and cream.

Cream of Wheat with Figs.

 $\frac{1}{4}$ c cream of wheat.

3 figs.

12 c boiling water

1/8 tsp salt.

Place boiling water in upper part of double boiler and put directly over the heat. Add chopped figs and salt to water. When boiling rapidly, slowly stir in the cream of wheat, cook over direct heat five minutes, stirring constantly. Place upper into lower part of double boiler. Cook 1 hour or more.

Rice and Raisins.

2 tbsp rice. l_{2}^{1} c boiling water 2 tbsp raisins l/8 tsp salt.

Wash and seed raisins. Pick over and wash rice thoroughly. Place boiling water in upper portion of double boiler and put directly over heat. Add salt and raisins. When boiling rapidly add rice slowly. Boil 5 minutes. Place upper into lower portion of double boiler and cook 45 minutes.

Plain Pastry

ま c flour 3 tbsp butter Speck of salt Ice water to moisten

Measure butter and flour and chill. Add salt to flour and cut butter into flour with knife. Use just enough cold water to make particles adhere

together. Pour onto unfloured board and push together with knives. Roll very rhin, handling as little as possible.

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Apple Pie.

Wash, pare and cut into thin slices, tart easily cooked apples. Cover a pie tin with plain pastry. Arrange sliced apple smoothly in pan. Sprinkle liberally with sugar and lightly with cinnamon. Add small particles of butter. Make perforations in upper crust. Place lightly over apples, press edges together with fork and trim. Bake until delicately brown. When it is done it will turn in pan.

Cranberry Pie.

Cover pie tin with plain pastry and trim the edges. Fill with cranberry sauce. Roll pastry for upper crust, cut in $\frac{1}{4}$ inch strips and lay across the pie making parallel uncovered spaces of $\frac{1}{2}$ inch. Arrange second layer of strips diagonally to first. Press end of strips firmly to under crust and trim.

Soft Cooked Egg.

To one egg use one pint of water. Put egg in a sauce pan, pour the boiling water over them and set on the back of the range. If for soft cooked eggs, leave in the water from five to ten minutes.

Omelet

l egg yolk 2 tbsp liquid 1/8 tsp salt $\frac{1}{2}$ tsp butter 1 egg white.

Beat the yolk slightly. Add the liquid and salt, beat white until stiff and dry. Melt the butter in an omelet pan, fold yolk mixture into white and form into pan. Cook until set and under portion is a delicate brown. Slip spatula under half of omelet next to handle of pan, fold over and turn onto heated plate. Serve immediately.

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Soft Steamed Custard

- 1 c milk
- 2 tbsp sugar
- 1 egg
- 10 drops vanilla

Heat milk scalding hot in double boiler. Add sugar and sait to egg and beat moderately. Pour hot milk slowly onto egg, beating continually. Return to double boiler and cook, stirring constantly until the spoon, when lifted from the mixture is coated. Lift upper from lower portion of double boiler occassionally to avoid too rapid cooking. Add vanilla after custard is cooked.

Steamed Caramel Custard.

c scalded milk
 l egg
 3 tbsp sugar
 Speck of salb.
 10 drops of vanilla.

caramelize two tbsp sugar and add to hot milk. When caramel is completely dissolved follow directions for making a soft eteamed custard.

Baked Custard

1 c milk

2 eggs

1 tbsp sugar

Speck of salt

10 drops of vanilla

Beat eggs moderately. Add sugar, salt, vanilla and milk and stir until sugar is dissolved. Pour into a baking dish, set in a pan of water and bake in a slow oven until firm. Unmould when cold and serve.

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Junket Pudding.

1/8 rennet tablet

t c milk

1 tbsp sugar

1 tsp water

Flavoring

Dissolve one rennet tablet in 8 tsp water and use 1 tsp of the solution. Dissolve sugar in milk and heat until 37 degrees C. Add rennet solution. Turn in to wet mold and allow to remain undisturbed, at room temperature until firm. Unmould and serve with sugar and cream.

Cheese Souffle

1/8 tsp salt

1 tbsp flour

1 tbsp butter

1 egg yolk

 $\frac{1}{4}$ c grated cheese

1 egg white

Make milk, butter, flour and salt into white sauce. Add cheese and stir until melted. Cool slightly, add egg yolk, beat white stiff and dry and fold into mixture. Turn into buttered baking dish, set in pan of water and bake in a slow oven until souffle is firm when pressed on by tsp. Serve as soon as removed from oven.

Pan Broiled Steak.

Remove from steak, all bone, fat and cartilage. Oil small frying pan with small portion of beef fat. Place steak in pan and thoroughly sear on u under side. Sear on reverse side. After both sides are seared turn every ten counts until cooked. Lift onto hot plate. Sprinkle with salt and serve with or without parskey butter.

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Ginger Bread

2 tbsp butter

 $\frac{1}{4}$ c sugar

t egg

1 c molasses.

t c sour milk

7/8 c flour

3/8 tsp soda

12 tsp ginger

1 tsp cinnamon

1/8 tsp salt

Sift flour, spice, salt and soda. Mix other ingredients in

order given and combine with the flour mixture. Bake in a moderate oven 30 minutes.

Baking Powder Biscuits.

1cflour2tsp baking powder1tbsp butterSpeck of saltMilk to make a soft dough.

Sift the flour, baking powder and salt together. Cut in the butter and add milk. The dough should be as soft as can be handled without sticking. Roll and cut quickly. Bake in a hot oven.

Yeast.

l medium sized potato l c rapidly boiling water

- 1 tbsp sugar
- 1 tsp salt
- 1 cake yeast.

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Wash and pare potato and when the water is boiling rapidly grate the potato into the water. Boil until clear, add sugar and salt, cool toluke warm. Add yeast cake which has been soaked in warmed water. Allow to ferment 24 hours.

Bread

1/8 c yeast
1/8 c yeast
1/8 tsp salt
1/8 c milk

Measure salt, sugar and butter and pour over them the scalded milk. When cool add the yeast. Add flour little by little, beating vigorously between each addition. Sontinue until the mixture will not adhere to the pan. Turn out on a well floured board and knead until stiff and smooth. Place in pan, cover and let rise until double its bulk. Knead and shape into a loaf. Place in buttered pan and press well into corners. Let rise again until double its own bulk. Bake in hot oven. Cool on a rack in a free furrent afair.

Pop overs

★ c flour
★ c milk
★ egg
1/8 tsp salt
2 tsp butter

Beat the egg thoroughly. Add gradually while beating the milk and flour to which the salt has been added. Put $\frac{1}{2}$ tsp butter in hot muffin pans. Fill pans $\frac{1}{2}$ full with batter and bake in a moderate oven 30 minutes. Serve immediately.

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Tea

1 tsp tea

1 cup water

Bring water just to the boiling point. Add the tea and allow to stand three minutes. Strain tea into hot cup and serve.

Coffee

2 tbsp coffee 1/8 of 1 egg $\frac{1}{4}$ c cold water 7/8 c boiling water

Mix coffee, egg and $\frac{1}{4}$ c cold water. Boil three minutes.

Add boiling water and allow to boil up once. Draw to back of range . Add 2 tbsp cold water and let stand 1 minute to settle. Decant into heated coffee pot.

> References used: Thompson's Food and Dietetics. Hutchisons Food and Dietetics, Farmer's Bulletin No. 13, Junior Note Book Elliot's Household Hygiene.

> > #\$#\$#**\$**#\$#\$#\$#\$#\$#\$#\$#\$#\$#\$#\$#\$#\$#\$#