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CAMP COOKERY

By

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RUTH McNARY SMITH



MAY, 1913

The Bulletins of the Oregon Agricultural College are sent
free to all residents of Oregon who request them,

A BULLETIN
on
CAMP COOKERY
issued by the
EXTENSION DIVISION
of the
Oregon Agricultural College

**For Special Use of Forest Rangers, Campers
and Sportsmen**

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CORVALLIS, OREGON
Revised May, 1913

INTRODUCTION.

No phase of cookery presents more interesting aspects than is offered in the preparation of food in camps. When one considers the significance of food and its relation to the efficiency and comfort of the human body, the importance of the knowledge of food values and the preparation of the food becomes apparent. Because of the lack of such knowledge the food prepared in camp is often badly cooked and without variety, making living under such conditions unpleasant and unhealthful.

Foresters and rangers as well as sportsmen, will find it to their advantage, before starting out on trips, to determine systematically not only the number of pounds that can be carried, but the proportion and variety of food materials actually needed, as well as the amount and type of equipment best suited to their needs.

The purpose of this pamphlet is to assist in bettering the conditions of camp life by offering suggestions as to the kinds of foods needed and ways of preparing the same. Suggestions are also made as to the equipment needed.

The gratifying demand for this bulletin has necessitated its second edition. Advantage has been taken of this opportunity, to revise the book and to incorporate many additional recipes, some of which have been furnished by men in the field.

In the preparation of this edition, we are under special obligation to Professor Henrietta W. Calvin, Dean of the School of Domestic Science and Art of the Oregon Agricultural College, Professor G. W. Peavy, Head of the Forestry Department, and Mr. H. S. Newins, Instructor in Forestry. They have contributed valuable material and have made helpful suggestions.

We wish also to take this opportunity to thank various members of the Forest Service who have contributed recipes and excellent suggestions for this second edition. Several recipes have been borrowed from Kephart's "Camp Crookery," Outing Publishing Co. and Stewart Edward White's "Camp and Trail," Doubleday Page & Co.

AVA B. MILAM.

RUTH McNARY SMITH.

Part I---Food Supplies for Camp. Equipment for the Camp.

FOOD SUPPLIES FOR CAMP.

Transportation facilities govern very largely the quantity and kind of supplies which may be carried on any camping expedition. There are certain staple food materials such as flour and beans which are common to all camps; there are the desirable but bulky articles such as canned vegetables, and the often impossible luxuries such as eggs and cream. The forest ranger with a pack horse, the four-man hunting party, and the large lumber camp, all have different food problems—but there are several things to be considered in buying supplies for any one of these. A food to be useful for camp and trail must contain the maximum amount of nutriment, or food value, with a minimum of bulk. Although these conditions limit the available food materials somewhat, it is possible to have palatable and nourishing food, and also have variety, which is usually lacking in camp fare. A judicious choosing of 100 pounds of supplies will result in a variety which will add much to the health and comfort of the woodsman.

RATION LIST.

A ration is the food estimated to be necessary for one man one day. The amount of various articles in the following ration are designed to be sufficiently liberal for all circumstances.

Article	Unit	100 rations
Fresh meat, including fish and poultry (a).....	Pounds..	100
Cured meat, canned meat or cheese (b).....	Pounds..	50
Lard	Pounds..	15
Flour, bread or crackers	Pounds..	80
Cornmeal, cereals, macaroni, sago, cornstarch	Pounds..	15
Baking powder or yeast cakes	Pounds..	5
Sugar (syrup or strained honey)	Pounds..	40
Molasses	Gallons..	1
Coffee	Pounds..	12
Tea, chocolate or cocoa	Pounds..	2
Milk, condensed (c).....	Cans	20
Butter	Pounds..	40
Dried fruit (d)	Pounds..	10
Rice and beans	Pounds..	20
Potatoes or other fresh vegetables (e).....	Pounds..	20
Canned vegetables or fruit	Pounds..	100
Spices	Cans	30
Flavoring extracts	Ounces ..	4
Pepper or mustard	Ounces ..	4
Pickles	Ounces ..	8
Vinegar (f)	Quarts ..	3
Salt	Quarts ..	1
	Pounds..	4

On the basis of this list, a party of six will consume 6 rations a day; 100 rations will therefore last 17 days. The cost of the above rations will vary, necessarily, with the locality. Near large markets or points convenient to railways, the ration, that is the food of one man for a day on the above basis, costs from 40 to 55 cents. Where transportation is difficult, as by pack animals, the above list must be varied by

omitting the heavier provisions. This includes those containing the most moisture, such as all canned fruits and vegetables. These may be replaced by dried fruits and vegetables. Where fresh meat can not be obtained, it must be replaced by additional bacon, ham, and corned beef.

Where provisions must be carried on men's backs, a still further cut must be made in the heavier articles. Under the most favorable conditions sufficient flour, bacon, rice, beans, oatmeal, cornmeal, tea, sugar, dried fruit, and salt must be provided. To the above ration list are to be added such quantities of matches and soap as may appear necessary.

One Month's Supplies For One Man on a Forest Trip. (White, "Camp and Trail"):

15 lbs. flour (includes flour, pancake flour, cornmeal, in proportion to suit).

15 lbs. meat (bacon or boned ham).

8 lbs. rice.

$\frac{1}{2}$ lb. baking powder.

$\frac{1}{4}$ lb. tea.

*150 saccharine tablets.

2 lbs. sugar.

8 lbs. cereal.

1 lb. raisins.

Salt and peper.

5 lbs. beans.

3 lbs. or $\frac{1}{2}$ dozen erbswurst.

2 lbs. or $\frac{1}{2}$ dozen dried vegetables.

2 lbs. dried potatoes.

1 can Baker's eggs.

One Month's Supplies For One Man on Pack Horse Trip.

15 lbs. flour supplies (flour, flapjack flour or cornmeal).

15 lbs. ham and bacon.

2 lbs. hominy.

4 lbs. rice.

$\frac{1}{2}$ lb. coffee.

$\frac{1}{2}$ lb. tea.

20 lbs. potatoes.
 A few onions.
 2 lbs. sugar.
 *150 saccharine tablets.
 3lb. pail cottolene or can of olive oil.
 3 lbs. Cream of Wheat.
 5 lbs. mixed dried fruit.
 Salt, pepper, cinamon.
 3 cans evaporated cream.
 ½ gallon syrup or honey.
 5 lbs. beans.
 Chilis.
 Pilot bread (in flour sack).
 6 cans corn.
 6 cans salmon.
 2 cans corned beef.
 1 can Baker's eggs.
 ½ doz. Maggi's soup.
 ½ dozen dried vegetables.
 Beans and julienne.

*Stewart Edward White recommends the use of saccharine tablets in place of sugar because of their advantage in lightening a load. He does not however seem to take into consideration the fact that, excluding fat, sugar is the most concentrated food that can be carried. One saccharine tablet may represent the sweetening power of one lump or teaspoon of sugar, but it does not represent the food value of the same.

†Three pounds of coffee may seem a desirable addition to this list.

(a) Eggs may be substituted for fresh meat in the ratio of 8 eggs to 1 pound of meat. There are some dried eggs that are fair substitutes for the fresh eggs. White recommends the powder put up by the National Baker's Egg Co. of Sioux City. It comes in one pound cans. Each can contains the equivalent of five dozen eggs and costs about \$1.25. A tablespoon of the powder and two of water is substituted for one egg. Bacon is the stand-by; ham affords a pleasant variety; while a little canned salmon and corned beef help out the ordinary fare.

(b) Fresh milk may be substituted for condensed milk in the ratio of 3 quarts of fresh for 1 can of condensed. Powdered milk of a good quality may be used in place of condensed milk. (1 pound of powder to 9 pints of water.)

(c) Fresh meats and cured meats may be interchanged on the basis of 5 lbs. of fresh for 2 lbs. of cured.

(d) Fresh fruit may be substituted for dried fruit in the ratio of 5 pounds of fresh for 1 pound dried. ("Canned fruit is sheer mad luxury. A handful of the dried article would equal a half dozen cans." White, "Camp and Trail.") The dried cranberries and rhubarb make good jellies and sauces which add to the diet craved by most campers. Raisins, dried figs, dried prunes, and dried apples are excellent for camp use.

(e) Dried vegetables may be substituted for fresh vegetables in the ratio of 1 pound of dried for three pounds of fresh. While many of the desiccated vegetables are tasteless, there are some on the market that are quite good. Spinach, peas, corn, and string beans are among those worth trying. There is an Italian tomato paste on the market which forms a very desirable accessory to the diet and may be used in rice and macaroni dishes. "Julienne," a mixture of carrots and other vegetables dried, is better than canned goods and much more easily carried." White, "Camp and Trail."

(f) Vinegar may be made in camp by making a syrup of 1 cup of sugar to $1\frac{1}{2}$ pints of water and bringing it to the boiling point. Cool and add 1 dry yeast cake. Put in a warm place and in about two weeks a very good vinegar will be produced.

(g) Cornmeal is a good substitute for a part of the white flour; corn bread, Johnny cake, etc., giving that change in diet which is an important factor to be considered.

(h) Raisins and dried fruit, including figs, should be on every provision list, while milk chocolate or other sweet chocolate (used extensively in the army) is a desirable accessory to camp fare because of its concentration.

(l) Peanut butter is a very acceptable substitute for butter, having the advantage of being more easily handled, and not becoming rancid so rapidly.

A few ounces of cinamon, allspice, nutmeg, ginger, cloves and other spices can be easily taken; they help to make desserts possible, and some of them may also be used in the curing of meats.

(j) The coarse sort of hominy makes a good variety.

(k) Rice is a very destrable camp food. It weighs little in proportion to its bulk, and one-half cup is ample for four persons one meal. It contains much nutriment, and one does not easily tire of it. It may be served in many ways: boiled; boiled with raisins; boiled with rolled oats; boiled, then fried; made into baked puddings; cooked with cheese; and made into cakes.

(l) One consumes much sugar when out in the open. It is a quick and comparatively cheap source of energy. It is also very concentrated, one pound of sugar containing much food value. One need not try to find a more concentrated substitute. Syrup is good on flapjacks and bread, and should always be in camp in some form or other.

(m) Lard, cottolene, or olive oil may be used. Butter is a luxury usually not carried on long trips.

(n) Beans are rich in sustenance, light in weight, and compressed in bulk. They are not easily cooked at a high altitude. Lima beans are the easiest cooked. A few chillis may be added for variety.

(o) Macaroni is bulky but a simple package goes a long way and is both palatable and nutritious. Break it into pieces an inch or two long and it will be easily packed.

(p) Some of the compressed soups are good. The most nourishing is the German Army Ration called Erbswurst. It comes in a sausage shaped package. The taste is like a thick bean soup.

(q) Tea or coffee may be taken. There is a brand of coffee now on the market, called G. Washington coffee, which is easily made and seems to be liked by many people. It is in a very fine powder. One-half teaspoonful is placed in a cup, boiling water is poured on, and the coffee is made.

(r) Buy good baking powders such a Royal or Price's or other tartarate powders. Do not buy some cheap unknown brand, for often such baking powders are very injurious.

(8) Breakfast foods bought in tin cans should be carried into camps. Put up in this way they will not deteriorate so rapidly.

SUGGESTIVE TABLE OF SUSTENANCE PREPARED BY U. S. FOREST SERVICE
(Food required for 1, 2, 4, 6, 8 and 10 men per day.)

Article	Number of Men				
	1	2	4	6	8
Flour, pounds	1.00	2.00	4.00	6.00	8.00
Corn meal, pounds	.05	.10	.20	.30	.40
Breakfast foods, pounds	.10	.20	.40	.60	.80
Rice, pounds	.05	.10	.20	.30	.40
Crackers, pounds	.05	.10	.20	.30	.40
Potatoes, pounds	.90	1.80	3.60	5.40	7.20
Sugar, pounds	.40	.80	1.60	2.40	3.20
Coffee, pounds	.12	.24	.48	.72	.96
Butter, pounds	.10	.20	.40	.60	.80
Cured meats, pounds	.50	1.00	2.00	3.00	4.00
Fresh meat or fish, pounds	.25	.50	1.00	1.50	2.00
Tea, pounds	.01	.02	.04	.06	.08
Lard, pounds	.15	.30	.60	.90	1.20
Vegetables, pounds	.10	.20	.40	.60	.80
Onions, pounds	.10	.20	.40	.60	.80
Beans, pounds	.15	.30	.60	.90	1.20
Chocolate, pounds	.02	.04	.08	.12	.16
Baking powder, pounds	.02	.04	.08	.12	.16
Soda, pounds	.01	.02	.04	.06	.08
					10.00
					.50
					1.00
					.50
					.50
					9.00
					4.00
					1.20
					1.00
					5.00
					2.50
					.10
					1.50
					1.00
					1.00
					1.50
					.20
					.20
					.10

Salt, pounds	.04	.08	.16	.24	.32	.40
Macaroni, pounds	.02	.04	.08	.12	.16	.20
Cheese, pounds	.10	.20	.40	.60	.80	1.00
Pepper, pounds	.01	.02	.04	.06	.08	.10
Cornstarch and tapioca, pounds	.05	.10	.20	.30	.40	.50
Spices, pounds	.05	.10	.20	.30	.40	.50
Fruit, dried	.15	.30	.60	.90	1.20	1.50
Meat, canned	.05	.10	.20	.30	.40	.50
Vegetables, canned	.10	.20	.40	.60	.80	1.00
Tomatoes, canned	.10	.20	.40	.60	.80	1.00
Corn, canned	.10	.20	.40	.60	.80	1.00
Fruit, canned	.15	.30	.60	.90	1.20	1.50
Milk, canned	.10	.20	.40	.60	.80	1.00
Pickles, canned	.03	.06	.12	.18	.24	.30
Extract, pints	.04	.08	.16	.24	.32	.40
Catsup, bottles	.02	.04	.08	.12	.16	.20
Soap, bars	.05	.10	.20	.30	.40	.50
Matches, boxes	.01	.02	.04	.06	.08	.10
Lemons, dozen	.01	.02	.04	.06	.08	.10
Candles, dozen	.05	.10	.20	.30	.40	.50
Eggs, dozen	.10	.20	.40	.60	.80	1.00
Coal oil, gallon	.01	.02	.04	.06	.08	.10
Pancake flour, pounds	.06	.12	.24	.36	.48	.60
Sago, pounds	.02	.04	.08	.12	.16	.20

This table is EXTREMELY liberal.

Weight of 100 Calorie Portions of Some Common Food Materials

Articles	Ozs.	Comparative weight
Canned tomatoes	16.0	
Cabbage	11.0	
Oranges	9.4	
Skim milk	8.0	
Apples	7.2	
Whole milk	4.9	
Canned peas	4.1	
Potatoes	4.0	
Canned corn	3.1	
Eggs	2.1	
Unsweetened condensed milk	2.0	
Dried beef	1.9	
Cream	1.7	
Bread	1.3	
Molasses	1.2	
Dried apricots	1.2	
Dried apples	1.1	
Dried prunes	1.1	
Dates	1.1	
Walnuts	1.1	
Jelly	1.1	
Dried beans	1.0	
Raisins	1.0	
Rice .....	.9	
Bacon .....	.9	
Macaroni .....	.9	
Dried peas .....	.9	
Cream wheat .....	.9	
Flour .....	.9	
Cornmeal .....	.9	
Sugar .....	.8	
Cheese .....	.8	
Rolled oats .....	.8	
Crackers .....	.8	
Dried corn .....	.8	
Dried milk .....	.6	
Salted peanuts .....	.6	
Dried eggs .....	.5	
Chocolate .....	.5	
Butter .....	.4	

A Calorie is the amount of heat required to raise 1 pound of water through 4 degrees F. Food value is estimated in terms of calories. The man doing average work demands approximately 3000 calories of food per day.

The length of the lines in this graph represent the comparative amount of each food required to give 100 calories, therefore the shorter the line the more concentrated (in weight) the article.

CAMP EQUIPMENT.

For a party of six, where transportation is by wagon, the following are the essentials of the living equipment for the camp, that is, the equipment exclusive of that required for transportation.

3 (9x9) tents (2 for sleeping and one for storage and cooking.)

45 feet of $\frac{5}{8}$ -inch rope.

In winter 3 heating stoves, also 1 small (cast iron) wood cooking stove with pipes.

2 mess boxes, one for cooking utensils, the other for table ware and light provisions, made of pine, screwed together, with hinged tops and compartments; also an inside cover, the full width of the top, which may be used as a bread board. When the lids are opened out and the two mess chests placed together they form a table of the width of the mess chests placed together and a length four times their thickness. These chests should be 20 inches deep, 20 inches wide and 24 to 30 inches long so as just to fill a wagon bed.

Mess kit may consist of the following articles:

2 wash basins (enameled ware).

2 pepper and salt boxes (aluminum ware).

2 buckets (collapsible canvass).

6 cups (white enameled).

1 bread pan (tin).

2 frying pans (heavy tin).

2 two-quart stew pans (enameled ware).

1 half-gallon coffee pot (enameled ware).

White oil cloth (for table).

Towels.

1 tin measuring cup or $\frac{1}{2}$ pint tin cup for measuring.

4 enameled camp kettles with covers, size ranging from one to three gallons so as to nest one within the other.

2 carving knives.

6 pans, $1\frac{1}{2}$ inches deep, 6 inches in diameter, for soup, oatmeal, etc. (White enameled).

1 wooden chopping bowl and chopper.

1 iron boiler.

- 1 kerosene oil can.
- 1 dish pan (heavy tin).
- 2 four-quart stew pans (enameled).
- 10 plates (enameled)
- 2 one-quart cups (tin).
- $\frac{1}{2}$ dozen steel black handled knives and forks.
- $\frac{1}{2}$ dozen plated tablespoons.
- $\frac{1}{2}$ dozen plated teaspoons.

"Enameled ware is the easiest of all to keep clean. It is the best material in which to cook. Its tendency to chip and flake in cold weather can be tamed by warming gradually, at such times, before exposing to fierce heat. It is not much heavier than any other ware that is strong enough for outdoor service.

"Ordinary tinware is lighter and cheaper than either of these but here its merits end. It will not stand rough handling, rusts easily, is hard to clean when greasy, and its soldered joints are always treacherous.

"Men who must travel with very light equipment should eliminate all but the absolutely necessary utensils and have them strong enough for hard service."

Where transportation is on the backs of animals, aluminum and tin may have to be substituted for granite ware to reduce weight, and many of the above articles must be dispensed with. The stoves will be replaced for baking with a tin or aluminum reflector or Dutch oven. The aluminum reflector is more easily kept bright than the tin, thus enabling it to reflect the heat more effectively. When not in use, the reflector folds to an inch in thickness and about a foot by a foot and a half in length. It weighs only about two or three pounds and costs from about two to four dollars.

In place of a reflector a Dutch oven may be used, a device, however, which has several undesirable characteristics. It is shaped like a high and heavy iron kettle on short legs and is provided with a massive cover. It is not only heavy to carry but is awkward to pack.

For transportation on men's backs, practically everything will be dispensed with but a few tin or aluminum plates, cups, knives, forks, spoons,

a coffee pot, frying pan and stew pan. A reflector should also be carried for baking.

The miscellaneous camp tools may consist of some or all of the following; if transportation facilities permit.

1 or 2 axes and extra ax handles.

1 hatchet.

Assorted nails.

Quart canteens covered with cloth and canvas, or in arid regions a one gallon canteen to each man.

Small files.

Lanterns.

Assorted rope and string.

Whetstone

Shovel.

Saw.

COOKING FIRE FOR A SMALL CAMP.

There are many ways of building the cooking fire. The essential in each case, however, is a good permanent draft. This can be secured best by the method usually employed in sheep camps. The site is chosen and an excavation is made, removing the soil to a depth of 12 inches, or approximately the depth of the shovel. The hole thus made should be at least three to four feet in width. The side exposed to the prevailing wind is then shovelled away allowing the free entrance of air. This opening is the front of the cooking fire. The air going in passes along the side walls to the rear and thence upward, thus perfecting the draft. Select two green poles of sufficient length to extend over the ends of the hole, (four to six inches in diameter), one to serve as a back log, the other as a front log. Lay the poles over the hole, spacing them the proper distance to support a camp kettle, frying pan, or coffee pot. Kindle the fire beneath and proceed with the cooking. The poles can be replaced from day to day as they burn away. When cooking frying-pan-bread by reflected heat, usually a dry front pole is preferred to a green, because the drier pole, being somewhat charred, combines with the hot coals beneath to produce a greater amount of reflected heat.

CRANE FOR A CAMP KETTLE.

"In constructing a crane for camp kettles, the height of the pole should be approximately shoulder high. The kettles should be suspended by pot hooks made from small tough saplings, trimmed to leave a projecting fork to suspend the kettle from the crane, and having at the other end a notch cut, or small nail driven in at an angle, to hold the kettle ball. No. 9 wire is also good for this purpose.

"By this method the hook may be grasped at a sufficient height above the fire to prevent burning oneself. By having pot hooks of different lengths, the desired intensity of heat can be secured by regulating the distance of the pot from the fire."

JAY BILLINGS,
Lake View, Oregon.

MAKING A FIRELESS COOKER IN CAMP.

It is very simple matter to construct a fireless cooker in camp if you have given it some previous thought before leaving for camp, and supplied yourself with enough material to make the cooker. This material need not be "excess baggage," but may be utilized in constructing the pack for the trip.

It is best to construct a box about the same size and shape as the box used in shipping two five gallon cans of oil. These pack readily on a mule, and hold a surprising amount of camp material. The material, to be at its best, should be about 1 inch thick for the end pieces and $\frac{3}{4}$ inch thick for the sides, bottom, and cover. Such thickness will stand more pressure in packing. If this is impossible, use a plain "Elaine" or some other oil packing box.

Supply yourself with sufficient excelsior to fill the box heaping full. This excelsior may be used throughout your packing.

In constructing the cooker, see that the sides and bottom of the box are solid; it may be necessary to add more nails. See that all

cracks have a strip nailed over them, and in general make the box as nearly air tight as possible.

Place pasteboard, if you have it, around the inside of the box and on the bottom. The large pasteboard from a wholesale cereal package is best. Then pack your excelsior into the bottom of the box. Place the vessel to be used in the center of the box and pack the excelsior firmly around it. Any air-tight vessel may be used. I have found that aluminum is best, for it heats up quicker, and maintains a more even heat for a longer period. Regular fireless-cooker vessels, having clamped lids, may be purchased.

After packing the excelsior around the vessel, remove the vessel and line the opening with pasteboard, to aid in maintaining heat and in keeping the wall from breaking down.

A layer of pasteboard may also be placed over the entire top of the excelsior, leaving a hole to match that in the excelsior. In constructing the lid, cleats about $\frac{3}{4}$ inch thick and $2\frac{1}{2}$ to 3 inches wide should be nailed along the edges, both at the ends and sides. These are made to fit down closely around the sides and ends of the box when closed.

On the under side of the lid a heavy cushion of cloth padding or excelsior covered with cloth should be placed. This must be full enough to make it difficult to shut the lid, thus assuring an air-tight vessel. Hinges and a hook may be brought along, or a heavy leather strap may be cut into hinges, and a large boulder used to hold the lid down tight. A pillow or cushion may be used to advantage instead of the lid padding.

These simple devices are very handy, it being possible to cook a cereal over night, and some such material as beans during the day, thus giving a well-cooked product to greet you in the morning, or when you return to camp at night.

G. N. MONTGOMERY,

O. A. C. '13.

Part II—Recipes

BEVERAGES.

Cocoa—1 cup condensed milk diluted to 3 cups, 3 tablespoons cocoa. 3 tablespoons sugar (if cocoa is unsweetened).

Heat milk, add sugar to the cocoa and mix with a little hot milk. Add to remainder of milk, heat and serve.

Coffee—Bring water to boiling point; add coffee, keep in a warm place for five minutes but do not allow to boil. Settle and serve. The coffee may be put in a small muslin bag, tied loosely and the bag of grounds removed before serving.

G. Washington Coffee—Put $\frac{1}{2}$ teaspoon (more or less according to taste) in a cup and add boiling water.

Tea—1 teaspoon of tea for each person. Pour over fresh boiling water, set aside in a warm place 3 or 4 minutes to steep. Then serve.

BREADS.

Man in camp life probably realizes more fully the truth of the statement "Bread is the staff of life" than he does in any other type of living. This adage, however, does not apply to bread "made out of putty and weightened with lead" a description which too often represents the camp bread. This need not be the case, however, for good wholesome breads may be made in camp as well as in the kitchen.

The baking powder breads are most commonly used in camps, being quickly and easily prepared. These breads involve the use of chemical leavening agents which render it less wholesome than bread made by using yeast (dry yeast may be carried into camp), as a source of leavening power. In addition to the unwholesomeness, one grows very tired of the baking

powder breads and the body demands a change which should be supplied in the form of yeast bread, salt-rising bread etc., recipes of which are found in this bulletin.

Army Bread—

- 1 quart flour 1 tablespoon sugar
1 teaspoon salt 4 teaspoons baking powder

Mix the ingredients thoroughly and stir in enough cold water, (about one and one-third pints) to make a thick batter. Mix rapidly with a spoon until smooth and pour out at once into a Dutch oven or baking pan. Bake about 45 minutes or until no dough adheres to a sliver stuck into the loaf.

Brown Bread—

- 2 cups meal 1 teaspoon salt
1 c. graham or rye flour 4 teaspoons b. powder
1 cup white flour $\frac{3}{4}$ cup molasses

About $2\frac{1}{2}$ cups water.

Mix the dry ingredients thoroughly and add the molasses and water. Mixture should be of the consistency of medium batter. Pour into a well greased lard pail, cover tight, set in a kettle of boiling water and let it steam for three hours. Turn out of pail and serve hot.

Biscuits—

- 2 cups flour $\frac{1}{2}$ teaspoon salt
4 teaspoons baking powder 2 tablespoons lard
Water or condensed milk to make a soft dough.

Mix the dry ingredients and then work in the lard with fingers or knife. Add the liquid gradually until the mixture is soft dough. Handle lightly. Place this dough on a floured board, roll out lightly to $\frac{1}{2}$ inch thickness. Cut with a baking powder can or top. Place in a pan and bake in a hot oven about fifteen minutes.

Biscuit Loaf—For four men.

- 3 pints flour 1 teaspoon salt
4teaspoons baking powder
1tablespoon cold grease

(Amount of water varies according to the flour.)

Mix thoroughly with a big spoon or wooden paddle, first the baking powder with the flour and then the salt. Rub into this the cold grease (which may be lard, cold pork fat drippings, etc.) until there are no lumps left and no grease

adhearing to bottom of pan. Then stir in the water and work it with a spoon until a stiff dough results. Have the pan greased, turn the loaf into it and bake. Test center of loaf with a sliver. When no dough adhears, remove bread. All hot breads should be broken with the hands, never cut.

To freshen bread that is left over and dried out, sprinkle a little water over it and heat.

Cinnamon Rolls—Prepare a rich biscuit dough of the following ingredients.

1 cup flour

1 tablespoon raisins cut in small pieces

2 teaspoons baking powder

$\frac{1}{4}$ teaspoon salt

$1\frac{1}{4}$ tablespoon lard or other fat

Water to make a soft dough (about 1-3 cup).

Roll out the dough about $\frac{1}{4}$ inch thick and spread on a little fat and the following mixture:

1 teaspoon cinnamon; 3 tablespoons sugar; 1 tablespoon flour; 1 tablespoon water. Roll the

sheet of dough into a cylinder and cut off $\frac{1}{2}$ inch slices. Spread the top with sugar and cinnamon mixture and bake. The dough may be simply sprinkled with sugar and cinnamon if preferred.

Corn Bread—No. 1.

2 cups corn meal

1 teaspoon salt

2 cups flour

3 teaspoons baking powder

1 tablespoon sugar

6 tablespoons melted lard

Mix the dry ingredients and add enough water or condensed milk to make a medium batter. Melt lard and stir into the mixture and bake in a well greased pan.

Corn Bread—No. 2.

1 quart meal

1 teaspoon salt

1 to $1\frac{1}{2}$ pints warm water.

Stir together until light. Bake to a nice brown (about 45 minutes) let it remain 15 minutes longer in the closed Dutch oven or reflector removed from the fire.

Corn Dodgers—

1 quart meal

1 teaspoon salt

Water to make a stiff dough.

Form into cylindrical dodgers several inches long and about $1\frac{1}{2}$ inches in diameter by rolling

between the hands. Have frying pan very hot, grease it a little and put dodgers on as you roll them out. As soon as they have browned put them in the oven and bake thoroughly.

Ash Cakes—Use same proportions as for corn dodgers and shape into balls as large as hen's eggs, roll in dry flour, lay in hot ashes and cover, completely, with them.

Corn Dodgers No. 2—

3 cups corn meal 1 tablespoon salt
 1 tablespoon sugar.

Mix dry ingredients. Pour on boiling water enough to wet it, nearly one quart. Make into small flat cakes about an inch thick and fry in hot fire until brown. They will fry in about 15 minutes.

Baked Corn Cake—

3 cups corn meal 1 teaspoon salt
1 tablespoon sugar
1 tablespoon lard or bacon grease.

Wet this with boiling water. Spread half an inch deep on buttered tin sheets and bake brown in a quick oven.

Corn Pone—

1 1/2 cups of corn meal	1 teaspoon shortening
1 teaspoon salt	1 tablespoon sugar

Mix the dry ingredients, then add the melted grease and enough liquid to make a soft dough that can be dropped from a spoon on a pan without spreading much. Bake in reflector or improvised oven.

Frying Pan Bread—

1 cup flour	1 tablespoon sugar
1 teaspoon salt	3 teaspoons baking powder

Pour this mixture into a well greased and hot pan and set flat near the fire. In a few minutes it will rise and stiffen. Prop the pan nearly perpendicular before the blaze; when brown on one side turn over. A clean silver fork stuck through the center of the loaf will come out clean if the bread is sufficiently baked.

Ginger Bread—

3 cups flour	2 teaspoons ginger
4 tablespoons melted lard	1 cup molasses
1 teaspoon baking powder	$\frac{1}{3}$ teaspoon soda

Water or condensed milk or dried milk (1 heaping tablespoon to 1 cup water) to make a medium batter, (about $\frac{3}{4}$ cup).

Stir and bake in a hot oven.

Pulled Fire Bread—Make a good stiff dough using,

1 cup flour 1/4 teaspoon salt

About 2 or 3 tablespoons water.

Pull it out into a long thin strip; wrap this strip corkscrew like on a stick of wood with bark on. Hold over very hot fire or ashes turning constantly until done. This bread is easily prepared when there is no provision for baking and utensils are limited.

Ranchman's Bread—Mix a lard pail two-thirds full of medium batter of flour and add one tablespoon of sugar. Allow to stand until the mixture has fermented and then become sour. Pour out about $\frac{1}{2}$ cup of the sour dough and add $\frac{1}{2}$ teaspoon soda to dough in the pail, $\frac{1}{2}$ teaspoon salt, 1 teaspoon lard and enough flour to make a very soft dough, melt the lard or other grease in the pan. Drop the dough in with a spoon turning it over in the grease. Allow to raise until about double in bulk and bake. The $\frac{1}{2}$ cup of sour dough may be poured back into the lard pail and the original quantity of batter

stirred up, which will be sour in a few hours and ready for use. The exact amount of soda needed depends upon sourness of the dough and it must be determined by experience.

Salt-Rising Bread—1 tablespoon of fresh cornmeal, $\frac{1}{2}$ cup scalded milk.

Add milk to corn meal while hot. Keep in a warm place for about 12 hours and stir vigorously or until fermentation begins, indicated by bubbles. Scald a mixing bowl. Mix half full of medium stiff batter of flour and water adding $\frac{1}{4}$ teaspoon of salt. Stir into this mixture one tablespoon of the fermented cornmeal. Stand in luke warm water until bowl is full of risen sponge, keeping at even temperature. Line a large bowl with 2 quarts of flour. Pour the sponge into this and enough warm milk to make a dough. Mix well, knead thoroughly for 20 minutes, shape into loaves and keep in a warm (not hot) place where temperature is fairly even until risen to twice the original bulk. Bake in a moderately hot oven.

Salt-Rising Bread (No. 2) — (Kephart Camp Cookery)—“This swells to heaven while it is fermenting, but it is a welcome change after a long diet of baking powder bread stuffs. For a baking of two or three loaves take about a pint of moderately warm water (a pleasant heat to the hand) and stir into it as much flour as will make a good batter not too thick. Add to this one-half teaspoon salt, not more. Set the vessel in a pan of moderately warm water within a little distance of a fire or in the sunlight. The water must not be allowed to cool much below the original heat. More water being added to pan as required. In six to eight hours the whole will be in active fermentation when the dough must be mixed with it and as much warm water (milk, if you have it) as you require. Knead the mass until it is tough and does not stick to the board. Make up your loaves and keep them warmly covered near the fire till they rise. They must be baked as soon as this second rising takes place, for unless the rising is used immediately on reaching its height, it sinks to rise no more.”

Unleavened Bread (No. 1) — Quickly made, wholesome and keeps like hard tack.

2½ pints flour 1 tablespoon salt
1 tablespoon sugar.

Mix with water to stiff dough and knead and pull until lively. Roll out thin as a soda cracker, score with a knife and bake. Unleavened bread that is to be carried for a long time must be mixed with as little water as possible (merely dampened enough to make it adhere), for if any moisture is left in it after baking, it will mold.

Unleavened Bread (No. 2) — (This makes a crisp cracker-like bread.)

¾ cup of corn meal ¾ cup of flour
1 teaspoon of salt 1 tablespoon of sugar
1 teaspoon of shortening.

Mix in just enough water to wet thoroughly, and beat briskly. The mixture should be crumbly. Mold into biscuits an inch thick, and place in a hot greased pan and bake before a hot fire.

Liquid Yeast—

4 medium sized potatoes (pared) 1 qt. water
½ cup sugar 1 teaspoon salt
1 dry yeast cake 1 tablespoon flour

Cook the potatoes in the water, mash and add the flour, sugar and salt to which has been added 2 tablespoons cold water and cook until thickened. Cool to luke warm and add the yeast cake which has been soaked in ¼ cup luke warm water. Allow to ferment about 24 hours. Place in a jar and set in a cool, dark place. This will keep about two weeks and the last cup of it may be used in place of a dry yeast cake in making a new supply.

Yeast Bread—

About 3½ cups flour ¼ cup sugar
1 quart scalded and cooled sweet milk, or water
¼ cup shortening
1 cup liquid yeast or 2 dry yeast cakes soaked
in ¼ cup luke warm water
1 teaspoon salt

Make into a sponge and allow to become thoroughly light; stir in remainder of flour and

work until perfectly smooth. The amount of flour will vary somewhat with the kind used. Allow to rise till more than twice the original bulk. Shape into loaves with as little working as will permit of smoothness. Allow to rise again and bake in moderate oven. Good bread may be made by adding enough flour at the first to make a stiff dough, thus omitting the sponge entirely.

Breakfast Rolls—(With eggs and butter)---

- 1 qt. flour ½ teaspoon salt
- 2 level tablespoons butter
- 1 pint cold milk (or enough to make a soft dough)
- 1 egg 1 teaspoon baking powder

Mix butter and flour, salt and baking powder together, add egg and the condensed milk until a soft dough is mixed. Form into rolls and bake quickly.

Corn Bread—(With eggs and butter)---

- 1 pint corn meal 3 teaspoons baking powder
- 1 pint flour 1 teaspoon salt
- 3 tablespoons sugar 2 eggs
- 2 heaping tablespoons butter
- 1 pint or more of condensed milk.

Put in butter and add sugar. Add the beaten egg, then the milk. Sift the salt and baking powder into the meal and the flour. Pour the liquid over the dry ingredients beating well. Pour batter into well greased pan, and bake thirty to forty minutes in moderately hot Dutch oven or baker. This mixture may also be made into muffins.

Corn Batter Bread—(With eggs)---

- 1 pint corn meal 2 pints milk (or water)
- 2 eggs 1 teaspoon salt

Beat the eggs light; add the salt then the meal and milk; gradually until well blended. Bake about thirty minutes. A little boiled rice or hominy grits may be substituted for a part of the meal.

Buckwheat Cakes—

- 1 pint buckwheat flour
 - 2 teaspoons baking powder
 - ½ pint wheat flour ½ teaspoon salt
- About ¾ cup of liquid.

Mix to a thin batter with condensed milk or water and cook in a hot greased pan.

Flapjacks—

2 cups of pancake or prepared flour
Enough water to make a thin batter (about $\frac{3}{4}$ cup) or
2 cups flour 1/2 teaspoon salt
4 teaspoons baking powder
Water (about $\frac{3}{4}$ cup).

Grease the frying pan with bacon rind or lard and fry cakes when pan is smoking hot.

Brown Sugar Syrup—

1 cup water 1 1/2 cup brown sugar
Boil the sugar and water until it is of the consistency of maple syrup.

Rice Cakes—When you have cold boiled rice left over, mix it half and half with flour, and proceed as with flapjacks. Cold boiled potatoes or oatmeal may be used in the same way. Rice cakes are best mixed with the water in which rice has been boiled.

COOKING OF CEREALS.

Many cereal preparations for making breakfast mushes are on the market, put up in one or two pound packages, paper or tin, with directions for cooking. In nearly all cases, time allowed for cooking is not sufficient unless the dish containing cereal is brought in direct contact with fire, which is not the best way. Mushes should be cooked in a fireless cooker or over hot water, without stirring; if a double boiler is not procurable, improvise one by putting a smaller kettle in a large kettle containing water. Boiling water and salt should always be added to cereals, allowing one teaspoon of salt to each cup of cereals. Corn meal and finely ground preparations should be mixed with cold water before adding boiling water in order to prevent lumping.

CEREALS AND VEGETABLES.

Macaroni and Tomatoes—Put as much macaroni as is needed into boiling salted water and cook till soft, cut some salt pork into small pieces

and put into a frying pan. Slice an onion into the frying pan and brown with the pork. Pour the water off the macaroni and pour macaroni into the frying pan. Add enough tomato paste to season well. Season with pepper. Add cheese if desired. — Walter H. Leve, Seattle, Wash.

Macaroni and Cheese—Cook macaroni in boiling salted water twenty minutes or until soft. Pour off the water and pour on cold, removing at once. This prevents pieces from sticking together. To each cup of cooked macaroni add 1 teaspoon tomato catsup or a tablespoon of canned tomatoes (this may be omitted), a little cayenne pepper, salt and two tablespoons of cheese cut in small pieces. Cover with condensed milk, diluted, or water and bake 15 minutes, in a moderate oven.

Boiled Rice—Wash the rice well and sprinkle into a kettle of salted water, boiling hard all the time. After thirty or forty minutes pour off the water and place the kettle near the fire so that the grains may dry and swell.

Rice and Cheese—Boil 1 cup of rice for every six persons, using plenty of water, boiling rapidly to make the grains whole and separate; add $\frac{1}{2}$ teaspoon of salt. When tender put a layer of the rice into a pan, then a layer of thinly sliced cheese, salt and pepper, another layer of rice, cheese, etc., until the pan is filled. Pour over this 1 cup of diluted condensed milk, sprinkling pepper over the top and bake.

Baked Beans—Soak one quart of beans over night in cold water. Drain and cover with fresh water adding a pinch of soda and boil for an hour. Pour off this water, add fresh hot water and cook until the skins burst and the beans seem quite soft. Mix with beans:

1 tablespoon salt	6 tablespoons molasses
Pepper	4 or 5 slices salt pork or bacon

Place in a pan or bean jar, burying the pork in the beans and bake from 6 to 8 hours if possible in a pit of coals.

Creamed Lima Beans—Soak 1 cup dried lima beans several hours in enough water to cover. Drain, add 2 pints of water and cook slowly until tender; add one cup of condensed milk and let simmer for one-half hour.

Creamed Lentils—Soak 1 cup dried lentils several hours in enough water to cover. Drain, add 2 pints of water and cook slowly until tender; add one cup of condensed milk and let simmer for one-half hour.

Baked Potatoes—Wash the potatoes, grease the outside with lard or bacon fat and bake in a frying pan covered with a lid, or in an oven, or in ashes, etc.

Potatoes, Boiled in Their Jackets—Wash potatoes thoroughly and cut a small piece from both ends, which gives vent to the steam and keeps potatoes from bursting open. Put them on in cold, not boiling water, and cook gently but continuously, adding salt to the water at first. Dry before the fire and serve.

French Fried Potatoes—Wash and pare potatoes cut in eighths lengthwise and dry with a clean towel. Fry in deep fat (three or more inches in kettle). Drain and sprinkle with salt.

Spinach Saute—Boil dried spinach 30 minutes.
 $\frac{1}{2}$ cup boiled spinach
 1 tablespoon butter or bacon fat
 1 teaspoon lemon juice or vinegar
 Salt, peper.

Melt butter in frying pan, add spinach, sprinkle with seasonings, and cook slowly till butter or bacon fat is absorbed. Add lemon juice or vinegar and serve.

Creamed Spinach—
 $\frac{1}{2}$ cup boiled spinach
 1 tablespoon butter or bacon fat
 1 tablespoon flour
 Salt and peper. $\frac{1}{4}$ cup milk

Melt butter or bacon fat in frying pan. Add chopped spinach. Cook a few minutes. Sprinkle with flour and seasoning. Stir, add milk gradually and cook 5 minutes.

Hominy, Boiled—Hominy may be soaked in cold water and cooked until soft and tender or boiled without soaking which will require about an hour, using 1 cup of hominy to 4 cups of water.

Fried—Hominy fried in bacon grease makes a good dish.

DESSERTS.

Blueberry or Huckleberry Sauce—Crush some berries in the bottom of a kettle to keep rest from sticking. Add sugar to suit the taste. Let cook over a slow fire. Serve with hot biscuits or on pie. — C. D. Springer, Detroit, Oregon.

Cranberry Sauce—Soak one cup of dried cranberries in 3 cups of cold water for 2 hours or longer. Cook slowly until tender. Add $\frac{3}{4}$ cup sugar and boil 15 to 30 minutes.

Dried Rhubarb Sauce—Same method as used for cranberry sauce.

Dried Loganberry Sauce—Same method as used for cranberry sauce.

Dried Peach Sauce—Same method as used for cranberry sauce.

Dried Prune Sauce—Same method as used for cranberry sauce.

Dried Apple Sauce—Same method as used for cranberry sauce.

Dried Apricot Sauce—Same method as used for cranberry sauce.

Dried Apple Jelly—One pound of evaporated apples and 1 pound of sugar. Stew apples in plenty of water and use as sauce. There is left a quart of hot juice. Into it put the pound of sugar. Boil without stirring until the juice becomes syrupy and pour into a vessel to cool. This will give about a pint of jelly.

Cranberry Jelly—Boil dried cranberries, keeping enough water in the pan to almost cover them. Strain off the juice, add $\frac{3}{4}$ as much sugar as juice and boil till it jells upon cooling.

Apricot Pie—Wash and boil dried apricots. Fill lower crust of pie with the chopped fruit, add sugar (about 3 tablespoons to 1 cup of apricots), arrange upper crust and bake. (1 pound apricots equals 3 cups.)

Fried or Dried Apricot Pie—

$\frac{1}{2}$ cup flour	1 $\frac{1}{2}$ tablespoons fat
1 tablespoon baking powder,	2 $\frac{1}{3}$ tablespoons milk
1 cup sugar	pinch of salt

Mix like biscuits and roll out $\frac{1}{4}$ inch thick. Melt 1 tablespoon butter or lard in frying pan. Place the round of pie crust in this, fill one side

with chopped and sweetened apricots. Fold the other side over and press edges together. Fry on one side then on the other, adding more butter or lard to the pan if necessary.

Rhubarb or Cranberry Pie—Crust—

1 1/2 cups flour
1/4 teaspoon salt
1/3 teaspoon baking powder

6 tablespoons fat
1/4 cup water

Sift flour, salt and baking powder together, cut in the fat, then add water to make a stiff dough.

Fill lower crust with cooked dried fruit, add sugar, arrange upper crust and bake.

Dried Peach Pie—Crust—

1 cup flour
4 tablespoons lard or bacon grease
 $\frac{1}{4}$ teaspoon baking powder $\frac{1}{4}$ teaspoon salt

Mix the lard and flour, to which the salt and baking powder has been added, then enough water to make a stiff dough which may be rolled out without sticking to the board. Line a pan with this dough and fill with dried peaches which have been soaked in cold water for several hours and cooked until soft. Make a cover of the remaining dough and press the edges of the top and bottom crusts together. Bake about 20 minutes in a moderate oven.

Cake—(With eggs).

6 eggs
1 cup flour
Separate eggs; beat whites until cut, add cream of tartar and beat till stiff. Fold in sugar beaten yolks, flour, and flavoring. Bake 1 hour in slow oven. — Otto J. Green, Cle Elm, Wash.

Ginger Cake—

4 cups flour
 1 cup molasses
 4 tablespoons lard or bacon grease
 Add enough water to make a thick batter.

Mix in the above 1 teaspoon of soda, 2 teaspoons of ginger and if possible a handful of raisins or dried currants. Bake in a medium oven. A considerable latitude is possible in following this recipe as I have for years estimated the quantity of ingredients and never have had

a failure.—Jay Billings, Forest Supervisor, Lakeview, Oregon.

Camp Cookies—

4 cups flour 1 cup sugar
4 tablespoons melted grease
1 teaspoon cinnamon and cloves or allspice
1 cup raisins 8 teaspoons baking powder

Mix the flour, sugar and baking powder together, pour in the melted fat, then add the raisins and enough water to make of the consistency of baking powder biscuits. Roll out about $\frac{1}{2}$ inch thick, cut with a baking powder can if there is no cutter, and bake.

Huckleberry Cobbler—Put $1\frac{1}{2}$ gal. huckleberries in a stew kettle without any water, boil five minutes. Pour the juice off. Roll biscuit dough, then place in bottom of frying pan and bake until brown on both sides. Put in the berries $1\frac{1}{2}$ inches thick. Make the upper crust large enough so it can be tucked down and connect with the bottom crust. This can be done by tilting the pan so that the berries will slide to one side of the pan. Apply the upper crust in the raw state, then bake as you would bread.

The juice poured off may be used to make jelly.—C. B. Reese, Foster, Oregon.

Fritter Batter—

1 cup flour $\frac{1}{4}$ teaspoon salt
 $1\frac{1}{2}$ teaspoons baking powder 4 teaspoons milk
3 teaspoons powdered sugar
1 egg—fresh or dried.

Mix and sift dry ingredients. Add milk and well beaten egg. Mix well and drop by spoonfuls into hot fat. Fry till brown and cooked through.

Doughnuts—

1 cup flour 1 teaspoon melted fat
 $\frac{1}{4}$ teaspoon salt $\frac{1}{3}$ cup sugar
 $\frac{3}{4}$ teaspoon baking powder nutmeg
1 egg—dried or fresh
milk—fresh, dried or condensed.

Mix and sift dry ingredients. Add egg, well beaten, and enough milk to make a smooth batter. Add flour to make a soft dough. Roll out $\frac{1}{2}$ inch thick. Cut and fry in deep fat.

Rice Pudding (No. 1)—

- 1 cup cold boiled rice (salted)
- 1 cup milk—fresh, dried, or condensed
- 1 egg—fresh or dried
- $\frac{1}{4}$ cup raisins, seeded.

Place in a greased pan and sprinkle with nutmeg. Bake one hour.

Rice Pudding (No. 2)—

- $\frac{1}{4}$ cup rice pinch salt
- $\frac{1}{4}$ teaspoon cinnamon
- $\frac{1}{2}$ tablespoon of butter (if possible) or lard
- 2 tablespoons sugar

Boil the rice until tender in about 1 cup of water to which the salt has been added. Then add the other ingredients and cook for about 15 minutes.

Camp Pudding—Have a large kettle of boiling water, plenty of it, and a large bag made from a piece of flour sack. Dip into boiling water and dredge flour on outside of bag. Cut into dice sizes, 1 cup of fat salt pork; roll in flour to separate mass. Then add 3 cups flour, 1 cup sugar, 1 cup currants, 2 teaspoons of spices, and 3 teaspoons of baking powder. If desired, other dried fruit may be added in place of currants. Add water to this and stir into good thick paste or batter. Turn this out into floured cloth. Allow room for swelling of pudding to double its size, tie up in cloth, drop in boiling water and boil two hours. Don't let water stop boiling or pudding will be spoiled.

Sauce for Pudding—

- $\frac{1}{4}$ cup sugar
- 1 cup of condensed milk, or dried milk dissolved in 1 cup of water, or water
- 2 tablespoons flour 1 teaspoon spice

Mix flour, spices and sugar together and add the milk slowly, stirring until smooth. Cook until thickened. Remove from fire and add vinegar to taste.

Hunter's Pudding—

- 1 cup finely chopped suet (or salt pork soaked in water over night)
- 1 cup molasses 1 teaspoon soda
- 1 cup condensed or dried milk (diluted)
- $1\frac{1}{2}$ teaspoons salt

3 cups flour

1 ½ cups raisins

1 teaspoon of cinnamon

Mix dry ingredients. Add molasses and milk to suet. Combine mixtures. Grease a lard pail, turn in the pudding, cover, set in a kettle of boiling water and steam for two or three hours, serve with pudding sauce.

Fruit Loaf—

1 cup flour

2 teaspoons baking powder

¼ teaspoon salt

1 tablespoon fat

Water enough to make dough which can be rolled out.

¼ cup cooked dried prunes, peaches or apples, etc.

Make a dough of five ingredients and roll to ½ inch thickness or pat out with the hands. Cover with the fruit, sprinkle with sugar if not sweet enough. Roll up and bake about one-half hour basting occasionally with ¼ cup of sugar added to 1 cup of juice in which the fruit was cooked.

MEATS.

To Preserve Meat, Fish, Game, Etc.—Slice meat to be preserved in long thin slices, knead plenty of salt in and lay aside so as to absorb salt for four hours. Then spread out singly in hot sun to dry for a few days and sprinkle with pepper, or smoke well for 24 hours over a thick smoke on a frame of green twigs. When properly cured the strips are dry to the touch and have shrunk up to ½ their size. This is sun dried or smoked jerked meat, so universally used on the plains by both white men and Indians. Will last for one year or more.

“Venison keeps a long time without curing, if the climate is cool and dry. To cure a deer’s ham, hang it up by the shank, divide the muscles just above the hock, and insert a handful of dry salt. The meat of the deer tribe gets more tender and better flavored the longer it is hung up. In warm weather dust flour all over a haunch or saddle of venison, sew it up in a loose bag* of cheese

*This sack of cheese-cloth containing the meat may be suspended in large loose “gunny-sack” as a double preventive for “blow flies.”

cloth and hang it in a shady place where there is a current of air. It will keep sweet for several weeks if there is no crevice in the bag through which insects can penetrate. Ordinarily it is best not to salt meat for salt draws the juices. Bear meat, however, requires much salt to cure it—more than any other game animal. Hornaday recommends the following recipe for curing venison:

“The proportions of the mixture are: Salt, 3 lbs.; allspice, 4 tablespoons; black pepper, 5 tablespoons; these are thoroughly mixed.

“Take a ham of a deer, elk, or sheep and as soon as possible after killing, dissect the thigh, muscle by muscle. Any one can learn to do this by following up with the knife the natural divisions between the muscles. With big game some of the muscles of the thigh are so thick they should be split in two. A piece of meat should not exceed five inches in thickness. Skin off all enveloping membranes so that the curative power will come in direct contact with the raw, moist, flesh. The flesh must be sufficiently fresh and moist that the preservative will readily adhere to it. The best size for pieces of meat to be cured by this process is not over a foot long, by six or eight inches wide and four inches thick.

“When each piece has been neatly and skillfully prepared rub the powder upon every part of the surface, and let the mixture adhere as much as it will. Then hang up each piece of meat, by a string through a hole in the smaller end, and let it dry in the wind. If the sun is hot keep the meat in the shade; but in the north the sun helps the process. Never let the meat get wet. If the weather is rainy for a long period, hang your meat-rack where it will get heat from the camp-fire but no more smoke than is unavoidable, and cover it at night with a piece of canvas.

“Meat thus prepared is not at its best for eating until it is a month old; then slice it thin. After that no sportsman, or hunter or trapper can get enough of it.

"No, this is not "jerked meat." It is many times better. It is always eaten uncooked, and as a concentrated, stimulating food for men in the wilds it is valuable.

"Blow flies work close to the ground, and will seldom touch meat that is hung more than ten feet above the ground. Game or fish suspended at a height of twenty feet will be immune from 'blows'.

"To keep fish in camp: Scale, clean, and behead them; then string them by a cord through their tails and hang them head down in a shady dry place. Never use fish that has been lying in the sun or that has begun to soften.

"To dry fish for future use, split them along the back, remove the backbones and entrails, salt the fish, and hang them up on a frame over a smudge until they are well smoked. Make a trough by hewing out a soft wood log, place the split fish in this, and cover them with a weak brine for one or two nights. Make a conical bark tepee on a tripod, suspend the fish in it, and dry and smoke them over a small fire for three days and nights."—Kephart Camp Cookery.

COOKING MEATS.

"Meat, game or fish, may be fried, broiled, roasted, baked, boiled, or stewed. Frying and broiling are the quickest processes; roasting, boiling and baking take about an hour or two. A stew of meat and vegetables takes from four to five hours. Tough meat should be boiled or braised in a pot."

Frying—Rake a thin layer of coals out in front of the fire; or for a quick meal make the fire of small dry sticks and fry over the quickly formed coals.

If a deep pan and plenty of frying fat is available, it is best to immerse the material completely in boiling grease, as doughnuts are fried. Let the fat heat until little jets of smoke arise (being careful not to burn the grease), then quickly drop in small pieces of the material, one at a time so as not to check the heat, turn them occasionally while cooking. Remove when done and place

on a coarse paper to absorb surplus fat. The above method is an excellent way to cook small fish.

When only shallow pans and little grease is available to fry (or properly, to saute) in this manner, without getting the article grease cooked, heat the dry pan very hot and then add just enough grease to keep the meat from sticking (fat meat needs none). The material should be dry when put into the pan or it will absorb grease. Cook quickly and turn frequently. Season when done and serve hot.

Fricasseeing—Smaller game birds are best fricasseed and served with gravy. A fricassee is made of meat or birds cut into small pieces fried or stewed, and served with gravy.

Broiling—Only fresh meat that is tender should be broiled or roasted. Both of these processes preserve the characteristic flavor of meat. Broil when in a hurry but roast your meat when you have leisure time.

For broiling cut the meat at least an inch thick. Venison usually requires some pounding. Have a bed of coals free from smoke with clear flaming fire to one side. Sear outside of meat by thrusting for a moment in the flame and turning; then broil before the fire, so as to catch drippings in a pan underneath. Do not season until done. A steak one inch thick should be broiled about five minutes, one and one-half inches ten minutes, two inches twenty minutes. Serve on hot dish with drippings poured over.

When you have no broiler, heat the frying pan thoroughly and get it almost red hot so as to seal the pores of the meat. Cover the pan. Turn meat often without stabbing (juices escape when meat is stabbed). A large venison steak will cook in about ten minutes.

To broil the meat by covering the slice of meat with hot ashes and embers is a very good way.

To cook on a rock take two large clean, dry flat stones, place one above the other with a few pebbles between to keep them apart, and build a fire around them. When they are well heated

sweep away the ashes and place the slices of meat between the stones.

Before broiling fish on an iron the broiler should be greased to prevent sticking.

Roasting—To roast is to cook by direct heat of the fire, as on a spit or before a high bed of coals. Baking is performed in an oven, pit or closed vessel.

Build a large fire of split board-wood against a high back log or wall of rocks which will reflect the heat forward. Sear the outside of the roast in clear flames until outer layer is coagulated, then place thin slices of pork to upper end; hang roast before fire and close to it by a stout wet cord; turn frequently; catch drippings in pan and baste with them. Just before the meat is done, baste and sprinkle with flour, then brown it near the fire and make gravy.

To roast in the reflector put thin slices of pork over the roast. Put a little water in the pan, lay the meat in, and set the baker before the fire. Baste occasionally. When the front is done reverse the pan. Make gravy from drippings.

Barbecuing—To barbecue is to roast an animal whole and baste it often with the following dressing.

1 pint vinegar
 ½ can tomatoes
 1 teaspoon of red pepper
 1 teaspoon of salt.

2 teaspoons of black pepper—2 tablespoons lard. Stir together until it is completely mixed. Tie a piece of clean cloth on a stick and keep the meat well basted with the dressing as long as it is on the fire.

Braising—Tough meat is improved by braising. Put the meat in a Dutch oven or a covered pot or sauce pan, with about two inches of hot water in the bottom. Add some chopped onions, turnips or tomatoes or potatoes (or all of these), cover and cook slowly for several hours. A few minutes before removing from the fire, season with salt and pepper (if desired). The gravy may be made by pouring some of the grease from the pot, adding a little water, salt and flour mixed until smooth and cooking until thickened.

Baking in a Hole—Dig a hole in the ground, about 18x18x12 inches. Place kindling in it and over the hole build a cob house by laying split board-wood sticks across, not touching each other and so on until you have a stack two feet high. Set fire to it and burn down to coals.

Cut the meat in pieces, season, add a small piece of fat pork, put in the kettle, pour in water to cover, put lid on kettle, rake coals out of the hole, put kettle in, shovel coals around and over it, cover all with a few inches of earth, and let it alone over night.

Baking an Animal in its Hide—If the animal is too large to bake entire, cut off what you want and sew it up in a piece of its hide. Line the hole with flat stones. Rake out coals and put meat in, cover first with green grass or leaves then with coals and ashes and build a fire on top. When done remove the skin.

Baking in Clay—Dress the animal but leave the skin and hair or feathers on; if it be a large bird cut off head and feet and pinions and pull out tail-feathers and cut tail off (to get rid of oil sack). If fish do not scale.

Have a pail of water in which stir clay until it is of the consistency of thick porridge. Take the bird by the feet and dip into the water. The clay will gather on and between the feathers. Repeat till the bird is a mass of clay. Lay this in the ashes, being careful to dry the outside. Bake till the clay is almost burned to a brick.

Baking in the Embers—To bake a fish clean it—if it is large enough to be emptied through the neck, do not split it open—season with salt and pepper and if desired stuff with Indian meal. Have ready a bed of glowing hard-wood coals; cover it with a thin layer of ashes, that the fish may not burn. Lay the fish on this and cover with more ashes and coals. On removing the fish, pull off skin, and the flesh will be found clean. A bird is baked in much the same way. Draw it but do not remove feathers. Wet the feathers by dipping the bird in water. Then bury it in the ashes and coals.

Boiling—Put fresh meat in hard boiling water for only a few minutes (serves same purpose

as searing); then decrease the heat and let it cook slowly; to let it boil hard all the time would make it tough. Salt or corned meats or those intended for stews or soups, go in cold water at the start and are good, usually brought to a boil; thereafter they should be allowed barely to simmer.

Stewing—Stewing is a very desirable way of cooking coarse and tough pieces of meat. Put the meat cut into small cubes into a hot frying pan. Let it brown, add a small quantity of sugar, if desired, and sliced onions. Cook until the onions are tender then pour the contents of the frying pan into the stew pan and add boiling water to cover the meat and let it simmer gently for two or three hours. Flavor with salt, pepper, herbs or curry powder. This dish may be thickened with browned flour, and vegetables may be added—turnips, carrots, etc., cut into small pieces and browned with the meat.—From Kephart, *Camp Cookery*, Ch. V, Meats.

Birds—Draw the bird, cut off the head, feet and wings, but do not pluck. Stuff with some bacon cut into small pieces. Now plaster the bird all over with about half an inch of wet earth free from gravel. Clay method is infinitely better, if at hand. Cook by the same method as described for fish, omitting the grass. Be sure to have a deep, hot bed of coals and cover the mud ball well on all sides. Leave it in the fire for an hour. When removed a blow will shatter the baked clay covering and the feathers and skin will come with it, leaving the meat exposed. All the juices and flavors have been retained by the covering, and the bacon has improved the flavor.

Method for Roasting a Bird—Clean the bird in the usual way, then split it down the back and put two or three little sticks in it to keep it as flat as possible. If you have any bacon cut a few holes in the thick part of the bird and stick some thin strips of bacon in the meat, then rub salt on it. Find a pole, the longer the better. On one end of the pole tie a string and on the other end of the string tie a bird, set the pole slanting in the ground or lean it against

a log, weighting the lower end with a rock. Let the bird hang close to the coals of the camp fire. Twist occasionally, or as often as it stops revolving. The longer the string, the longer the turning goes on without attention. A short piece of wire for the lower part of the string lessen the danger of the string burning through.—Alfred J. Conrad, Marbelmount, Wash.

Venison to Dress and Cook—"If possible skin the deer while yet warm and it will save trouble; to skin a frozen animal is difficult. Hang the deer by one hind leg, cut the skin from the top joint to the second joint of the leg, make an incision around the hock and then begin the process of skinning downward. It will peel quite easily if handled gently. When the legs are bare, cut the skin down the center of the body to the breast, being careful not to cut into the flesh. Then, with gentle force, draw the skin off the whole carcass, using the knife when necessary. A sharp knife is indispensable. The head may be skinned or it may be cut off without skinning. After the deer is skinned hang up by both hind legs, insert a sharp knife in the breast and split open the full length. Open the deer, and keep open with a strong and slender stick. Put the hand above the kidney, and with a gentle pull release the entrails, which will come out easily, leaving the liver, heart and lights. The animal is now ready for use. Let it hang for 24 hours before cutting up unless hunger forbids. When you want to cut it for cooking split through the center, beginning at the tail and ending at the neck; divide into fore quarters and hind quarters; the hind quarters being the best. The flesh may be roasted or stewed. If baked in the oven, skewer on it plentifully thin slices of salt pork or bacon. Venison is dry if this precaution is neglected. Grill chops over hot coals or on red hot griddle, do not fry in fat. The liver and heart are good baked in a pan in the oven with onion and small cubes of salt pork.

Bacon Fritters—Slice bacon or salt pork, soak in water for an hour, roll in cornmeal or flour and fry in bacon grease.

Bacon and Gravy—Soak slices of bacon for half an hour or more in cold water if salty and fry until light brown. Remove from the pan and stir in some flour, mixing thoroughly with the grease in the pan, grease and flour to be in about the following proportions: for 1 cup gravy, two tablespoons bacon fat and one tablespoon flour. Allow the flour and grease to brown and pour in a cup of hot water gradually, avoiding lumps.

Dried Creamed Beef—Dilute a can of condensed milk by adding twice the quantity of water. Put over the fire and bring to the boiling point. Stir in about a cup of very thin flour and water batter, stirring until the mixture thickens and is the consistency of a thin gravy. Season with salt and pepper and add a can of dried beef, or two cups of any dried meat or fish cut in small pieces.

Corned Beef Hash—Chop some canned corned beef fine with sliced onions. Hash up with boiled potatoes, two parts potatoes to one of meat. Season with pepper and a little mustard. Put some pork fat in a frying pan, melt, add hash and cook until nearly dry and a brown crust has formed. Evaporated potatoes and onions can be used instead of the fresh vegetables.

Corned Beef Boiled—Put the meat into enough cold water to cover it. Let it come slowly to a boil, and then simmer slowly until done.

Mulligan—Put on a joint of beef or mutton in cold water and bring to the boiling point, cooking slowly until tender. Add a can of tomatoes, peas, or other canned vegetables obtainable, two or three slices of bacon, some potatoes and onions cut up in small pieces and cook until the vegetables are done.

Thicken if rather thin, with a little flour stirred up with some water to form a thin batter. A mulligan can be started and added to from time to time, using left over meat, pieces of bread, bacon, etc.

Codfish Balls—Shred the fish into small pieces. Pare some potatoes. (1 pint of fish to 1 quart of raw potatoes.) Put them in a pot, cover with

boiling water, cook till potatoes are soft, drain water off, mash fish and potatoes together, and beat light with a fork. Add seasoning and shape into flattened balls. Fry in very hot fat deep enough to cover.

Stewed Codfish—Soak several hours in plenty of cold water. Place in pot of fresh cold water and heat gradually or slowly until soft, (boiling toughens the fish).

Codfish Hash—Mash stewed codfish with potatoes and onions, season and fry like corned beef hash.

Fish Chowder—Cut two or three small slices of pork or bacon and fry them out in a kettle. Put in a layer of fish cut in slices, on top of the pork or bacon, then a layer of onions, potatoes and left over biscuit and repeat in layers until all the materials are in. Season each layer, cover with water and stew slowly for half an hour, or until well done.

Fish Cakes—Take cold fish and remove the bones; mince well and mix with equal parts bread crumbs and potatoes; season well and fry in a little fat. Brown well on both sides. An onion helps it.

Fish Baked—Fish can be cooked deliciously as follows, and in this way is a pleasing variation from the usual fried method. Clean the fish, but do not scale, leave head, tail and fins intact, and put a small strip of bacon in each of them. Dig a hole large enough for the fish to lie in with several inches to spare. Build a fire in it and get a good hot bed of coals. Rake out half of them, cover the remainder with an inch of grass, place the fish on the grass, cover with more grass, and pile the rest of the hot coals on top. Cover the hole with a frying pan or any other handy thing, as for instance a flat stone, or with earth.

Planked Fish—Shad, flounder, sunfish or any other "flat" fish may be "planked." Cut off the head and tail, split open the back, but do not cut clear through, leaving the fish so that it may be opened wide like a book and tacked on a plank or piece of bark. Tack some thin slices of bacon or pork to the end of the fish that will

be uppermost when before the fire, and if you like, a few slices of raw onion sprinkled with pepper and salt. Sharpen one end of the plank and drive it into the ground, before a bed of hot coals, catch the drippings in a tin cup or large spoon and baste the fish continually until done. Oak or hickory is the best for fish planks.

Smoked Herrings—(1) Scald in boiling water until the skin curls up, then remove head, tail and skin. Clean well. Put into a frying pan with a little bacon grease. Fry gently a few minutes. A little vinegar is an improvement. (2) Clean, remove skin and toast on a stick over the coals.

Salmon Creamed—Break the cooked salmon into small pieces and heat with about one-half the quantity of milk. Season with salt and pepper.

Sardines Fried—Wipe free of oils and fry in bacon fat or lard.

Pot Pie No. 1—Fill a Dutch oven or kettle two-thirds full with fresh mutton or beef and cook until tender. Add three or four potatoes peeled and sliced and two onions cut in small pieces. Return to the fire and cook until the vegetables are half done, then spread a dough over the top made of the following ingredients.

2 cups flour	$\frac{1}{2}$ teaspoon salt
4 teaspoons baking powder	5 tablespoons grease
Water to make a soft dough.	

Cover over kettle with a lid, heaping coals on top, and bake the pie until the crust is browned.

Pot Pie No. 2—Simply follow recipes for soup and stew, only leave out the bones. 15 minutes before serving drop in by the tablespoonful, a cup of ordinary biscuit dough. Put on cover and boil until done. Boil slowly and do not burn. Add sliced potatoes and onions also. Don't boil meat fast, as this toughens it.

Meat Gravy—Take equal quantities of hot meat fat and flour—stir until well browned. Add 1 pint of boiling water to 4 tablespoons of flour, cook five minutes, season with salt and pepper.

An abundance of rich gravy is relished by campers who do not carry butter.

SOUPS.**Bean Soup—**

3 cups beans

 $\frac{1}{2}$ cup tomatoes (may be omitted)

3 quarts water

2 slices onion

Salt

Pepper

Boil the beans and water until the beans lose their shape and can be easily mashed up. Add the tomatoes, onions, salt and pepper, boil 5 minutes and serve. Lentils are good combined with beans in this kind of soup.

Erbawurst—To one tablespoon of the powdered peas, bacon, etc., add 1 cup of cold water. Cook until a thickened soup is formed.

This soup comes in the form of sausage covered with paraffine paper, weighing a quarter of a pound or a half pound. Four kinds are made so that there is a variety: pea, bean, lentil, and turtle. The Knorr soup sausage weighing four ounces, sells for about 10 cents each and will make four to six meals. The army emergency ration costs 35 to 40 cents each.

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