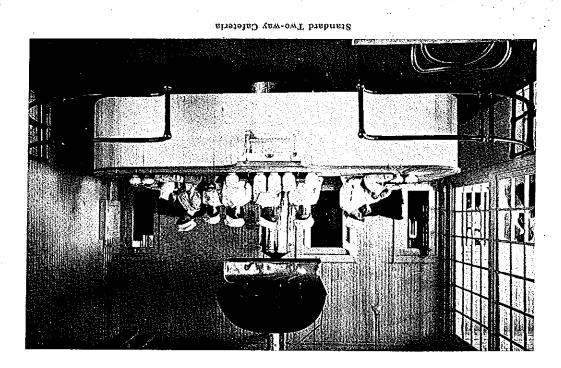
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Preparation of Foods

for
Factory Employes

Compiled by
General Service Department
The National Lamp Works
of the General Electric
Company, Cleveland, Obio



Introduction

that in a factory where 300 are employed (75% being women) that 80% of the total will use the Lunch Room daily. The Cafeterias shown in this book are in 15 sections and can be combined to make any shape of cafeteria—(either a one, two or four-way). With this equipment any number of employes can be served in seven minutes.

The menu consists of—

SOUP CRACKERS

COFFEE MILK SANDWICHES ICE CREAM

CAKE

Each recipe has been scientifically worked out according to proper food values and to supply the correct number of portions for 300 employes.

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Subject Abbreviations used in Cooking	Bean Soup	Cheese and Peanut Sandwiches Cottage Cheese Sandwiches Cocoa Cream of Tomato Soup Cream of Bean Soup	Egg Sandwiches	Ham Sandwiches I	Measurements Used in Cooking	Fotato Soup	Sardine Sandwiches. Soups. Split Pea Soup. Sweet Sandwiches.	Vegetable Soup

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Preparation Cafeteria Foods

Abbreviations Used in Cooking

Gallongal.	Ounce, oz.	Poundlb.	Peckpk.	Minute	<u>ک</u> ر
Teaspoont.	Tablespoontb.	Cup	Pintpt.	Quartqt.	Hour

Measurements

-1 pt.	.1 qt.	l gal.	
2 c1	2 pts1	4 qts1	1 pk
8 t 1 tb.	16 tb c c.	2 gills1 c.	8 qts

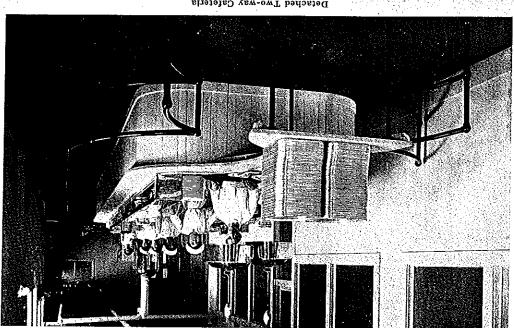
Make all measurements level, using a case knife to obtain a level measurement.

A cupful is a standard half pint filled level with the top.

Half a spoonful is obtained by dividing through the middle lengthwise.

Quarter of a spoonful is obtained by dividing a half crosswise.

Third of a spoonful is obtained by dividing twice crosswise.



Detached Two-way Cafeteria

SOUPS

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In soup making use the water in which vegetables and cereals are cooked. It conlean meat which may be used and add it to the other soup ingredients. The solid tains valuable nutrients. Also, chop any portion of meat contains much nutriment.

SPLIT PEA SOUP

Total Calories	12896	224	5024 1002	6976	26122
Calories Derived from Protein	3571.2	. 28.57	957.44	36.32	4720.73
Ingredicats	Split Peas (8 lbs.) Water	Onions (1 lb. 2 oz.) Balcing Soda			128 Portions One Portion
Quantity	4 qts. 9½ gals.	 	2 gals. 2 % c. 1bs.	8 % %	

Pick over and wash the peas, add the water and soak over night. Add the onions and baking soda. Cook gently (or in a double boiler) in the water in which the peas were soaked. When the peas are soft press them through a strainer, using a potato masher. Heat the milk in a double boiler. Heat the butter and oleomargarine in a large saucepan or kettle. (Stir with a wooden spoon; do not brown the fat.)

When the fat bubbles, add the flour and seasoning (which have been mixed together). Stir until perfectly smooth. Add a portion of the hot milk, stir constantly and cook until the mixture thickens. Then add another portion of the hot milk and proceed as before. Add this to the strained peas and heat until boiling. Add more seasoning if necessary.

Serve hot.

A ham bone may be cooked with the peas.

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VEGETABLE SOUP

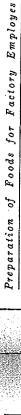
Total Calories	0089	77795	4830	477	879	301.5	412	0888	23715.25 185.27
Calories Derived from Protein	262.16	2141.00	462.60	48.96	48.96	68.50	87.04	244.80	3416.17 26.6
Ingredients	Soup Bones Salt Pepper Corns Water	Lean Beef Water	Pearled Barley Water	· ·	Turnips (3 lbs.)	Cabbage (Small 2½ lbs.)	Tomatoes (4 lbs.)	Fotatoes (7 1/2 lbs.)	128 Portions 1 Portion
Quantity	10 lbs. $\frac{1}{3}$ c. 1 t. $\frac{1}{3}$ t.	5 lbs. 1 gal.	3 lbs. 3 gal.	2 qts.	o o	1 head	2 qts.	4 qts	

Use soup bones, salt, pepper corns and water, to make soup stock. Clean the bones, cover with 2½ gallons cold water, add seasoning and cook at simmering temperature for six or eight hours. Drain off the stock, add 2½ gallons more cold water. Cook at simmering temperature for one-half hour. Drain into the "first" stock. Let it stand in the refrigerator until needed. Before using, remove all fat.

Chop the meat (before or after cooking), add one gallon cold water, and cook at simmering temperature until tender. Cook the pearled barley in water until tender. Wash, pare, and cut vegetables by passing through the coarsest knife of a meat chopper. Cover with boiling water and cook until tender. Add to soup stock, cooked meat and barley. Add more seasoning if necessary.

Serve hot.

Substitute rice, macaroni or spaghetti, for the barley.



POTATO SOUP

Quantity	Ingredients	Calories Derived from Protein	Total Calories
% bu.	Potatoes (30 lbs.)	979.20	9120
4½ gal.	Water (including water in which potatoes were cooked)		
4½ gal.	Milk (36 lbs.)	2154.94	11304
í gt.	Onions (1 lb. 2 oz.)	28.57	224
1½ lbs.	Fat (34 lb. butter and 34 lb. oleomargarine)	27.24	5939
4½ c.	Flour (1 lb. 2 oz.)	228.60	1803.4
1½ c.	Salt		
1½ tb.	Pepper		
tb.	Celery Salt		
ن د	Chopped Parsley		
	128 Portions	3417.85	27683.4
	One Portion	26.7	216.2

Wash and pare the potatoes. Cover with boiling water and cook gently until tender. Mash the potatoes. Chop the onion. Heat the onion and milk in a double boiler. Make a sauce of the fat, flour, seasoning and hot milk (see Split Pea Soup). Add the mashed potatoes, stir until perfectly smooth. Heat the mixture until it boils, add the chopped parsley, and if necessary, more seasoning.

Serve hot.



BEAN SOUP (10 Gallons)

+ (0.545-00)			33.5			
Total Calories	23460	F866		801.5	9269	31461.5 245.8
Calories Derived from Protein	6123.60	28.57		101.6	36.32	6290.09 49.14
Ingredients		Baking Soda Onions (1 lb. 2 oz.) Dried Celery Leaves or	Courty Sone Capper Pepper Solt	Mustard (dry) Flour (½ lb.)	Fat (1 lb. butter and 1 lb. oleomargarine)	128 Portions One Portion
Quantity	7% qts. 12 gal.	27.120 1.120 1.120 1.120 1.120 1.120 1.120 1.120 1.120 1.120 1.120 1.120 1.120 1.120 1.120 1.120 1.120 1.120 1.120 1.120 1.120 1.120 1.120 1.120 1.120 1.120 1.120 1.120 1.120 1.120 1.120 1.120 1.120 1.120 1.120 1.120 1.120 1.120 1.120 1.120 1.120 1.120 1.120 1.120 1.120 1.120 1.120 1.120 1.120 1.120 1.120 1.120 1.120 1.120 1.120 1.120 1.120 1.120 1.120 1.120 1.120 1.120 1.120 1.120 1.120 1.120 1.120 1.120 1.120 1.120 1.120 1.120 1.120 1.120 1.120 1.120 1.120 1.120 1.120 1.120 1.120 1.120 1.120 1.120 1.120 1.120 1.120 1.120 1.120 1.120 1.120 1.120 1.120 1.120 1.120 1.120 1.120 1.120 1.120 1.120 1.120 1.120 1.120 1.120 1.120 1.120 1.120 1.120 1.120 1.120 1.120 1.120 1.120 1.120 1.120 1.120 1.120 1.120 1.120 1.120 1.120 1.120 1.120 1.120 1.120 1.120 1.120 1.120 1.120 1.120 1.120 1.120 1.120 1.120 1.120 1.120 1.120 1.120 1.120 1.120 1.120 1.120 1.120 1.120 1.120 1.120 1.120 1.120 1.120 1.120 1.120 1.120 1.120 1.120 1.120 1.120 1.120 1.120 1.120 1.120 1.120 1.120 1.120 1.120 1.120 1.120 1.120 1.120 1.120 1.120 1.120 1.120 1.120 1.120 1.120 1.120 1.120 1.120 1.120 1.120 1.120 1.120 1.120 1.120 1.120 1.120 1.120 1.120 1.120 1.120 1.120 1.120 1.120 1.120 1.120 1.120 1.120 1.120 1.120 1.120 1.120 1.120 1.120 1.120 1.120 1.120 1.120 1.120 1.120 1.120 1.120 1.120 1.120 1.00 1.0	4 % ti 0	는 다음	sol lbs.	

Soak the beans over night in water, drain excess of water. Then add fresh water, baking soda, sliced onions and celery leaves. Sloudy cook the beans until they are very soft. Press the beans through a strainer, using a potato masher. Heat the butter and oleomargarine in a large saucepan or kettle. (Stir with a wooden spoon; do not brown the fat.)

When the fat bubbles, add the flour and seasoning which have been mixed together. Stir until perfectly smooth. Add a portion of the strained bean mixture, stir constantly, cook until it thickens. Then add another portion of the strained beans and proceed as before. After the last portion of strained beans is added, allow the soup mixture to reach the boiling point. Add more water and salt if necessary.

Serve hot.

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Preparation of Foods for Factory Employes

CREAM OF TOMATO SOUP

Total Calories	3296	15072	9269		28550 223
Calories Derived from Protein	696.32	2872.32	36.32		4011.36 31.34
Ingredients	Strained tomatoes (32 lbs.)	Milk (48 lbs.) Flour	Fat (1 lb. butter and 1 lb. oleomargarine)	Pepper	128 Portions One Portion
Quantity	4 gal.	6 gal. 2 lbs.	g Ibs.	1½ tb.	

Heat the tomatoes to boiling point. Add the baking soda, stir. Keep the tomatoes hot. Heat the milk in a double boiler. Make a sauce of the fat, flour, seasoning and hot milk (see Split Pea Soup). Keep the sauce hot. Just before serving remove both the tomatoes and the sauce from the fire. Blend the ingredients.

Serve at once.

CREAM OF BEAN SOUP

Total Calories	0089	7795	2346				7586	601.2		5232		30310.2	236.8	XXX
Calories Derived from Protein	262.16	2141.00	612.36			•	1436.16	76.32	į	27.24		4555.94	35.59	-
Ingredients	Soup Bones Salt Pepper Corns			Paking Soda Water	Salt	Pepper	Milk (24 lbs.)	Flour (6 oz.)	Fat (1/2 lb. butter and 1 lb.	oleomargarne)	wordestersmre Sauce	128 Portions	One Portion	
Quantity	10 lbs. 1 % c.	5 gal. 5 lbs. 1 gal.	1½ lbs.	3 gal.	%	<u>ب</u>	s gal.	1½ c.	1½ lbs.		် ဌ			

Prepare the soup stock and meat (see Vegetable Soup). Soak the beans over night in water; drain excess of water. Then add the fresh water and baking soda, and cook slowly until the beans are very soft. Press the beans through a strainer, using a potato masher. Heat the milk in a double boiler. Make a sauce of the fat, flour, seasoning and hot milk (see Split Pea Soup). Add the strained beans, cooked meat and soup stock. Heat. If necessary, add more seasoning.

Serve hot.

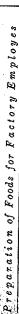
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COCOA

Quantity	Ingredients	Calories Derived from Protein	Total Calories
4 c. 4 c. 1 gal.	Cocoa (1 lb.) Sugar (2 lbs.) Water (2 qts. cold water and	391.92	2256 3628
8 gal. 4 t.	2 qts. boiling water) Milk (24 lbs.) Salt (level)	1486,16	7586
	128 Portions One Portion	1828.08 21.5	13420

Mix cocoa and cold water. Boil gently for 30 minutes, stirring occasionally. Heat the milk in a double boiler, then add the sugar and the cooked cocoa mixture to it. Heat for 30 minutes. Do not remove the scum. Before serving, add the salt, and beat surface with a Dover egg beater.

Serve hot.



EGG SANDWICHES

Calories Derived Total from Calories Protein	792 12800 863.68 2380 6.72 1307.4	2662.40 16487.4 - 41.6 257.6
SP F	1792 863. 6.	966
Ingredients	Sandwich Bread (128 slices) Eggs (4 lbs.) Salt Butter Cayenne Dry Mustard	Vinegar 64 Sandwiches One Sandwich
Quantity	32 4 Twes 34 th. 34 th. 4 th.	1 tb.

Place eggs in hot water; let simmer—not boil—for 40 minutes. Drain hot water from them, add cold water and allow to remain in water until cool. Remove the shells, chop the egg white and mash the egg yolk. Add to the prepared eggs the butter (which has been melted), cayenne, mustard and vinegar. Mix thoroughly and spread on bread.





HAM SANDWICHES-I

Quantity	Ingredients	Calories Derived from Protein	Total Calories
4 l'ves 4 lbs.	Sandwich Bread (128 slices) Boiled Ham	1792.00	12800.0
% .	Butter	12.52	2323.2
	, Salt Dry Mustard		-
3 tb.	Cayenne (use sparingly) Vinegar		
	64 Sandwiches One Sandwich	3271.4	20249.6

Pass the boiled ham through a meat grinder. Cream the butter, add the seasoning and vinegar. Blend thoroughly then add the minced ham. If necessary, add more salt.

For plain Ham Sandwiches, use \$ ounce of butter for each sandwich (two slices bread).

Preparation of Foods for Factory Employes

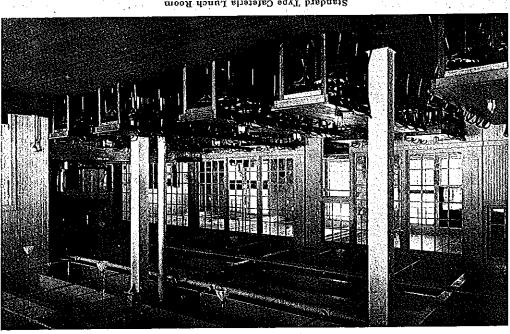
HAM SANDWICHES-II

Quantity	Ingredients	Calonies Derived from Protein	Total Calories
. S lbs.	Boiled Ham, Chopped	1099.44	3848.
. 1 c.	Sauce Fat (½ c. butter and		
	1/2 c. oleomargarine)	9.08	1744
1%c	Flour (3& lb.)	76.9	601
1½ qts.	Milk (8 lbs.)	179.52	948
	Cayenne (sparingly)		
12 tb. 4 l'ves.	Dry Mustard Sandwich Bread (32 1/2-inch		
	slices per loaf)	1792.00	12800
	64 Sandwiches	3156.24	19930
	One Sandwich	49.3	311.4

Make a sauce of the ingredients indicated, in the following manner:

In a saucepan, melt the fat. Add the flour, cayenne and mustard and mix thoroughly. Add a small portion of the milk. Heat until it thickens, stirring constantly. Add more of the milk, heat and stir as before. Continue until all the milk has been added.

Chop the ham in a food chopper. Mix with the sauce.



Standard Type Caleterla Lunch Room

Cheese and Peanut Sandwiches

Preparation of Foods for Factory Employes.

Lagredients Sandwich Bread (128 slices) Cheese
Salted Peanuts
Vinegar Salt, if required Cayenne Pepper (use spar'ly)
64 Sandwiches One Sandwich

Pass the cheese and peanuts through the meat grinder. Add the vinegar and seasoning. Mix thoroughly.

the cheese mixture. If not served at once, wrap the sandwiches in dry towels and then cover with towels wrung out of hot water. Cut the bread into 1/2-inch slices. Spread generously with

Salmon Sandwiches

Total Calories	3556.0	200 157.0	. 148.8	12800,0	16861.8 263.46
Calories Derived from Protein	1581.92	25.4 29.92	53.92	1792.00	3483.16 54.4
Ingredients	Salmon (4 lbs.) SALAD DRESSING	Fat Grained from Salmon Flour (18 lb.) Milk (1/2 lb.) Vinegar Salt	Mustard Pepper Bggs (4 oz.) Lemons—juice Cayenne	Salt, if needed Sandwich Bread (32 ½-inch slices per loaf)	64 Sandwiches One Sandwich
Quantity	4 cans	% 0001	۳ 03 03 با	4 I'ves	-

Remove the salmon from the can and drain the oil into the top of a double boiler. Add the flour, salt, mustard and pepper to the oil and mix thoroughly. Heat until it thickens, stirring constantly. Add part of the milk, stir and heat until it thickens. Add more milk, and repeat stirring and heating until all the milk has been added. Then add the vinegar and the eggs (which have been beaten). Cook over hot water and set aside to cool.

Remove bits of boxe from the salmon. Add the salad dressing, lemon juice, cayenne and salt (if needed). Spread the mixture between slices of bread.

Preparation of Foods for Factory Employes

Cottage Cheese Sandwiches

Calories Total from Calories	755.2 992 14.52 993	29.92 157 12.72 100.2	1.68 326.8	26.96 74.4	1792.00 12800.0	2633.00 15443.4
Ingredients	Cottage Cheese (2 lbs.) Olives (1 lb.) Pimentos (small)	Milk (3/ lb.) Flour (10.2) Flour (10.2) Flour (10.2)	oleomargarine) Salt Wisterd	် ်က္ခ	slices per loaf)	64 Sandwiches
Quantity	2 qts. 1½ pts. 1 can	1 4 8 2 4 4	+ t+ 2-1-	7.7. c. 1. l. ves		

Make a salad dressing of the ingredients indicated in the recipe. Follow the method of making the salad dressing given in Salmon Sandwiches, substituting butter and oleomargarine for the oil drained from the salmon.

Remove the stones from the olives. Chop the olives and pimentos in a food chopper.

Mix the cottage cheese, olives, pimentos and salad dressing. Spread between slices of bread.

Pickles may be substituted for olives.

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Sweet Sandwiches

Quantity	Ingredients	Calories Derived from Protein	Total Calories
3 lbs. 1 lb. 2 4 4 C. 4 1 ves	Raisins (seeded) Figs (dried) Sugar (2 lbs.) Flour (2 oz.) Oranges—juice (10% oz.) Lemons—juice & rind (12 oz.) Water Sandwich Bread (32 ½-inch slices per loaf)	141.48 78.00 0.00 25.44 0.00 0.00	4689 1437 8628 200.4 138.6 138.2
	64 Sandwiches One Sandwich	2036.92 31.8	25026.2 359.8

Chop the raisins and figs in a food chopper. Heat the fruit juice and water. Put the flour and sugar in the top part of a double boiler and mix thoroughly. Add the hot fruit juice and water to the sugar mixture. Cook the mixture over hot water for 15 minutes, stirring until it thickens. Add the chopped fruits and continue cooking until the fruit is heated through. Cool and spread between slices of bread.

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Sardine Sandwiches

(For method of cooking the eggs, see Egg Sandwiches.) Chop the eggs in a food chopper.

· Remove the bones from the sardines and break the fish into pieces. Add the sardines and the oil in which they were canned, to the chopped eggs. Add the lemon juice and seasonings. Spread between slices of bread.

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ENERGY REQUIREMENT

The energy requirement, for an average person, exercising moderately, is 2500 to 3000 Calories per day. Estimating one-third of the day's rations as the energy requirement of one meal, the energy requirement of a meal becomes 833 to 1000 Calories.

It has been estimated that from 10 to 15 per cent of the energy requirements should be furnished by protein: i. e., nitrogenous food.

The ratio of the fuel value of protein, or nitrogenous food to the fuel value of fat and carbohydrate, or non-nitrogenous food, is termed nutritive ratio. In formulating diets, it is helpful to have the nutritive ratio given with the total energy requirement. Expressing ratio in the form of a fraction and using "one" as the numerator, the above nutritive ratio may be written as:

1/9 to 1/5.7 average nutritive ratio: i. e., for every Calorie produced by protein from nine to five and seven-tenths Calories should be produced by fat and carbohydrate.

The above energy requirement and nutritive ratio have been taken as the basis for "Food Combinations for Luncheons." The calculations are based on the factors:

- 1 gram protein yields 4 Calories.
 - I gram fat yields 9 Calories.
- 1 gram carbohydrate yields 4 Calories.

Preparation of Foods for Factory Employes

Food Combinations for Luncheons

Total Calories	185.27 270.00 100.00 200.00 150.00	157.9 257.6 244.00 200.00 859.5	204.0 316.4 244.0 200.0	185.27 316.4 244.0 200.0 945.67
Calories Derived from Protein	26.6 43.47 5.3 14.0 7.65 97.02	21.5 41.6 8.9 14.0 86.0	36.88 51.1 8.9 14.0	26.6 51.1 8.9 14.0
	1 portion vegetable soup. 1 cheese and peanut sandwich. 1 large banana. 1 piece cake (2 oz.). 1 glass milk. Nutritive ratio, 1	1 cup cocoa 1 egg sandwich 1 portion ice cream (78 qt.) 1 portion cake (2 oz.) Nutritive ratio	I portion split pea soup	I portion vegetable soup I ham sandwich I portion ice cream (1% qt.) I portion cake (2 oz.) Nutritive ratio, 1

Food Combinations for Luncheons-Continued

	Calories Derived from Protein	Total Calories
l portion potato soup. I ham sandwich. I large banana. I portion cake (2 oz.). I cup cocoa.	26.7 51.1 5.3 14.0 21.5	216.2 316.4 100.0 200.0 1157.9
Nutritive ratio, 1,35	118.6	990.5
I portion cream of tomato soup	\$1.34 9.4 51.1 5.8 14.0	223.0 100.0 316.4 100.0 200.0
Nutritive ratio, $\frac{1}{7.4}$	111.14	939.4
l portion cream of bean soup l egg sandwich l large orange l large banana l portion cake (2 oz.)	35.59 41.6 6.2 5.3 14.0	236.8 257.6 100.0 100.0 200.0
Nutritive ratio, 1	102.69	894.4
I portion bean soup	49.14 28.0 0.5 8.9 5.3	245.8 200.0 100.0 244.0 100.0
Nutritive ratio, 1	91.84	889.8

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Food Combinations for Luncheons—Continued

Calonies Denved from Calonies Protein	26.7 216.2 · 51.1 316.4 200.0 7.7 100.0 99.5 832.6	81.5 51.1 8.9 8.9 244.0 14.0 95.5 95.5	49.14 245.8 41.1 241.5 8.9 244.0 14.0 200.0	49.14 245.8 49.3 311.4 8.9 244.0 14.0 200.0
	I portion potato soup			l portion bean soup (10 oz.)

Food Combinations for Luncheons-Continued

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