

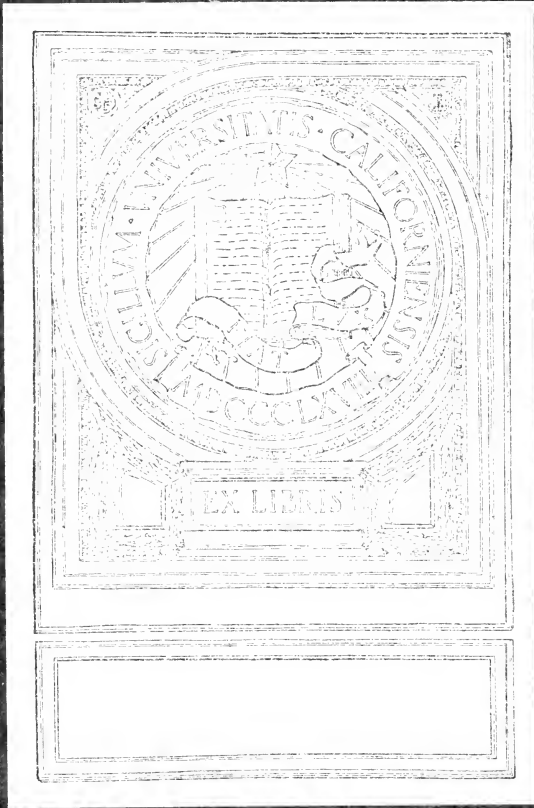
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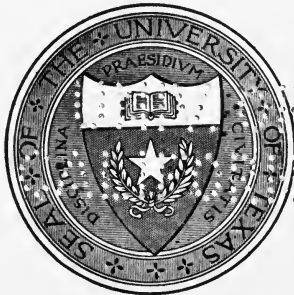
EXTENSION SERIES NO. 63

OCTOBER 20, 1914

**NUTS AND THEIR USES
AS FOOD**

BY
JESSIE P. RICH

Home Welfare Division
Department of Extension



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The benefits of education and of useful knowledge, generally diffused through a community, are essential to the preservation of a free government.

Sam Houston.

Cultivated mind is the guardian genius of democracy. . . . It is the only dictator that freemen acknowledge and the only security that freemen desire.

Mirabeau B. Lamar.

THE UNIVERSITY OF TEXAS
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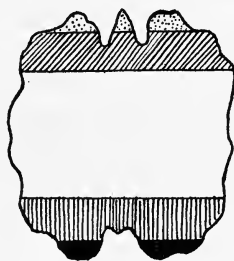
Nuts and Their Uses As Food

The pecan crop of last year was greater than the total quantity of all nuts used in 1900. This is a convincing argument that nuts are being used in this country as an article of food. They are no longer considered merely as a tid-bit, something to be munched between meals, or to be used as a dainty at the end of a meal. A knowledge of their food value gives them a definite place in the diet and increases their productive importance.

The term "nut" is not a definite one, technically speaking, and is applied indiscriminately to many fruits or parts of fruits which have a more or less hard, woody covering surrounding a meat or kernel. The most diverse plant groups are cultivated for our nut supply. Some are obtained from the deciduous trees, others from the tropical palms or evergreens, others from shrubs and bushes, and the Agricultural Department at Washington ranks the leguminous vine bearing the peanut among our nut producers. It is a legume, however, not a true nut.

Nuts in general are rich in fat, contain large amounts of protein material, varying amounts of carbohydrates, and valuable mineral salts. The pecan contains the largest amount of fat of any of the food nuts (70 per cent). The pine nut, or *Pignolia*, has the largest amount of protein of the nuts (33 per cent), and also a large amount of fat and mineral salts. The peanut is second in rank for its amount of protein. The almond, beechnut, chesnut, and Pistachio nut all contain more than 20 per cent of protein. This places them among the high protein content foods. The chestnut and also the peanut contain large amounts of starch and sugar. The chestnut shows as much as 41 per cent of carbohydrates.

WALNUT



PERCENTAGE COMPOSITION



16.6

PROTEIN



63.4

FAT



16.1

CARBOHYDRATES



1.4

ASH



2.5

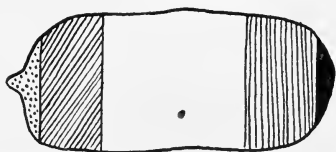
WATER

FUEL VALUE

3285 CALORIES
PER POUND.

PEANUT

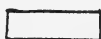
(NOT A TRUE NUT)



PERCENTAGE COMPOSITION



25.8



38.6



22.4



2.0



9.2

PROTEIN

FAT

CARBOHYDRATES

ASH

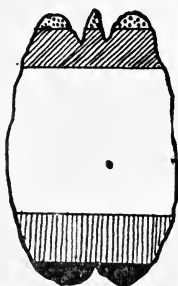
WATER

FUEL VALUE

2500 CALORIES

PER POUND.

PECAN



PERCENTAGE COMPOSITION



9.6

PROTEIN



70.5

FAT



15.3

CARBOHYDRATES



1.9

ASH



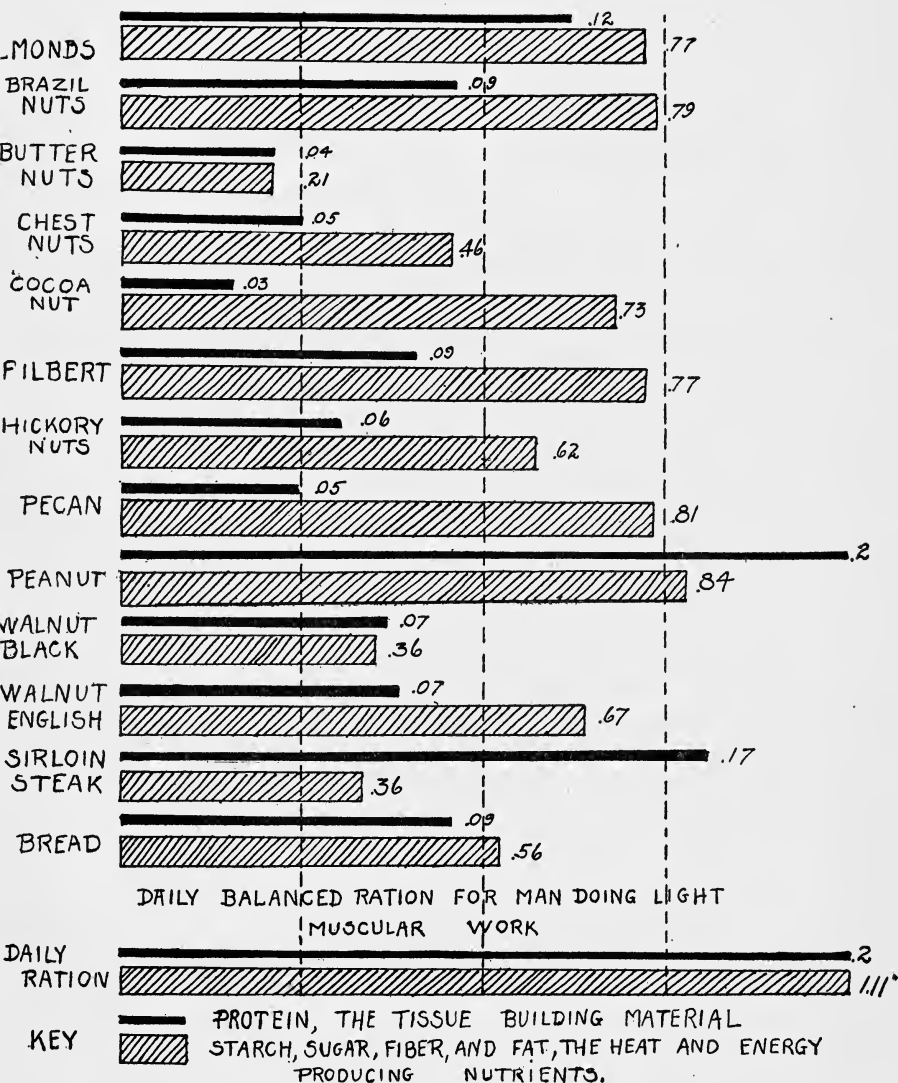
2.7

WATER

FUEL VALUE
3435 CALORIES
PER POUND.

The accompanying diagram graphically indicates the comparative food value of nuts, the nutrient in each case being from a pound as they are sold on the market.

COMPARATIVE FOOD VALUE OF NUTS.



The following table shows the exact composition of our more common food nuts:

Kind of Nut	Refuse	Edible Portion					Ash	Calories* Fuel value per pound
		Water	Pro- tein	Fat	Carbo- hydrate			
Almond -----	47.00	34.7	4.4	4.7	50.4	4.2	1.6	1.265
Brazil nut.....	49.35	4.7	17.4	65.0	5.7	3.9	3.3	3.120
Butter nut.....	86.40	4.5	27.9	61.2			3.0	3.370
Chestnut (fresh).....	15.70	43.4	6.4	6.0	41.3	1.5	1.4	1.140
Cocoonut -----	34.66	13.0	6.6	56.2	13.7	8.9	1.6	2.805
Filbert -----	32.08	5.4	16.5	64.0	117		2.4	3.100
Hickory nut.....	62.20	3.7	15.4	67.4			2.1	3.345
Peanut -----	27.04	7.4	29.8	43.4	14.7	2.4	2.2	2.610
Pecan -----	50.10	3.4	12.1	70.7	8.5	3.7	1.6	3.300
Pine nut, Spanish or Pignolia (shelled).....		6.2	33.9	48.2	6.5	1.4	3.8	2.710
Pistachio -----		4.2	22.6	54.5			3.1	3.250
Walnut -----	57.80	3.4	18.2	60.7	13.7		1.7	3.075

*The calorie is the unit of measure used to determine the amount of heat liberated from foods when burned in the body.

These tables indicate that nuts are very concentrated foods, and it is from this fact that their reputation for indigestibility has arisen. They often have been eaten in large quantities after a hearty meal or late at night, and, as a matter of course, have caused discomfort. Nuts need to be considered more carefully than many of the ordinary materials, for any concentrated nutrient is often the cause of digestive disturbances. Vegetarians of California live on fruits and nuts, and the combination furnishes adequate and wholesome living. Their experiment is convincing, no doubt, that nuts may be used as articles of staple diet, but, being rich in protein and fat, they should be used in combination with such carbohydrate foods as bread, vegetables, and fruits. They should always be thoroughly masticated, and, for children, they are better ground or chopped. Nuts are especially recommended for foods for diabetics and others whose diet must exclude starch and sugar. In this case, the chestnut and peanut should be excluded.

The economic value of nuts may best be shown by a comparison with other and more common food materials. For instance, 10 cents worth of pecans furnishes three times as much food value (measured in calories) as 10 cents worth of

porterhouse steak, about the same amount of food material as 10 cents worth of potatoes, and about one and one-half times the nutrient as whole milk. In the case of the peanut, 10 cents worth is equal to 20 cents worth of porterhouse steak, 13 cents worth of potatoes or 36 cents worth of milk. Ten cents worth of hickory nuts is equal in nutritive value to about 10 cents worth of potatoes, 18 cents worth of whole milk and 32 cents worth of porterhouse steak. It is interesting to note that 10 cents worth of peanuts contain 120 grams of protein, more protein than is generally considered adequate for a day's consumption.

Nuts when purchased in the shell are cheaper and less liable to contamination than other foods. Those purchased shelled are always questionable, for many are shelled under insanitary conditions and in homes where contagious diseases exist. When nuts are purchased shelled they should be scalded before using. This is, however, not a reliable safeguard.

There are many products on the market from the various food nuts. Some of the more important, both from the commercial and dietetic standpoint, are almond meal, peanut oil, peanut butter, cocoanut milk, cocoanut oil, chestnut paste, chestnut flour, and nut candy.

Many of these nuts, and especially nut products, are important food in the child's school luncheon. There is no end to the appetizing sandwiches which can be made from the nut butter and the chopped or ground nuts in combination with other materials. Such sandwiches with a cup of hot chocolate or bowl of cream soup in the place of the greasy fried meat, cold biscuit, and indigestible pastry, which so commonly fills the lunch basket, would do much toward building up strong bodies and brighter minds for our school children.

The following further emphasize the fact that *nuts* have high food value, and, when they are used in combination with other foodstuffs, greatly increase the amount of nourishment of that particular dish:

NUTS GREATLY INCREASE FOOD VALUE OF CHERRY SALAD.

Cherries on lettuce leaf with dressing furnish....	265 calories
One tablespoon of pecans furnishes.....	80 calories

Total food furnished by cherry salad stuffed with nuts	345 calories
Nuts increase food value of salad.....	80 calories

NUTS GREATLY INCREASE FOOD VALUE OF STUFFED BEETS.

One beet stuffed with rice and white sauce furnishes	258 calories
Two tablespoons pecans furnish.....	190 calories

Total food furnished by beets stuffed with nuts and rice.....	448 calories
Nuts increase food value of beets.....	190 calories

NUTS GREATLY INCREASE FOOD VALUE OF CORN STARCH PUDDING.

One serving of corn starch pudding furnishes....	191 calories
One-eighth cup of pecans furnishes.....	143 calories

Total food furnished by nut corn starch pud- ding	334 calories
Nuts increase food value of pudding.....	143 calories

The following recipes have been tested and indicate desirable ways of using nuts:

SOUPS.

ALMOND SOUP.

$\frac{2}{3}$ c. almonds	3 c. white stock
6 bitter almonds	1 small onion
4 tbsp. cold water	3 tbsp. butter
Small pieces celery	3 tbsp. flour
2 c. scalded milk	1 c. cream

Salt and pepper to taste.

Blanch, chop, and pound almonds in mortar. Add water and salt gradually, then add stock, onions, and celery; let simmer one hour, and rub through sieve. Melt butter. add

flour, and pour on gradually the hot liquid; then add milk, cream, salt and pepper.

CHESTNUT PUREE.

4 c. white stock	2 c. scalded milk
2 c. fresh chestnuts,	1 slice of onion
boiled and chopped	$\frac{1}{4}$ tsp. celery salt
$\frac{1}{4}$ c. butter	$\frac{1}{4}$ c. flour

Salt and pepper to taste.

Cook stock, chestnuts, onion, celery, and celery salt 10 minutes; rub through a sieve; add milk which has been blended with the flour and butter and seasoning.

CREAM OF CHESTNUT SOUP.

Mix one cup of cooked and sifted chestnuts with one pint of white stock and one pint of white sauce.

PEANUT SOUP.

2 tbsp. butter	4 c. milk
2 tbsp. flour	1 c. roasted peanuts
	$1\frac{1}{2}$ tsp. salt

Run peanuts through food chopper; heat them with the milk, and make into a white sauce with the butter and flour.

TOMATO SOUP.

1 can of tomatoes	2 tsp. sugar
1 pint of water	1 tsp. salt
12 pepper corns	$\frac{1}{8}$ tsp. soda
Bit of bay leaf	2 tbsp. peanut butter
4 cloves	3 tbsp. flour

1 slice onion

Cook tomatoes, water, pepper corns, bay leaf, cloves and sugar twenty minutes; strain and add salt and soda; bind by adding flour creamed with the peanut butter; boil and serve hot.

ENTREES.

CHESTNUT ROULETTES.

1 c. chestnut puree	2 eggs
2 tsp. heavy cream	2 tsp. butter

Onion, salt paprika.

Mix ingredients in order given; cook two minutes and cool.

Shape a little larger than French chestnuts, dip in crumbs, eggs; crumbs again. Fry in deep fat; drain on brown paper.

CHESTNUT EN CASSEROLE.

Remove shells from three cups chestnuts; put in casserole dish and pour over five cups highly seasoned chicken stock. Cover and cook in slow oven three hours; then thicken chicken broth with 2 teaspoonfuls butter and $1\frac{1}{4}$ tablespoonfuls flour cooked together. Serve in casserole dish.

SWEET POTATO PEARS.

2 cups hot riced potato	1 c. English walnuts,
3 tbsp. butter	chopped
$\frac{1}{2}$ tsp. salt	1 beaten egg

Form in pear shape, dip in crumbs, egg, and crumbs again; fry in deep fat and drain. If potatoes are very dry, it will be necessary to add hot milk to moisten.

VEGETABLES.

PEANUT TURNIPS.

Slice turnips in rounds, throw into a rapid boiling meat stock and cook until tender. Make alternate layers of chopped peanuts, dissolved peanut butter, and the turnips. Season each layer with salt and pepper. Bake in the oven for about fifteen minutes. Baste every few minutes with thin peanut butter.

NUT FILLED POTATOES.

6 potatoes	1 tbsp. parsley
1 c. rich milk	1 tbsp. melted butter
1 tsp. salt	1 c. nut meats

Bake potatoes until soft and mealy. Prick to let out steam, and then cut directly in halves where they were pricked and with a sharp spoon remove the pulp, turning into a warm mixing bowl; mash thoroughly, adding salt, parsley, melted butter and nuts that have been passed through the meat chopper. Beat with a fork until light and return to shells. Dust

with brown bread crumbs, place in a hot oven for ten minutes to brown the crumbs, and serve hot.

STUFFED BEETS.

6 good sized beets	$\frac{3}{4}$ c. boiled rice
1 c. white sauce	$\frac{1}{3}$ c. chopped pecans

Boil beets until tender, remove centers and refill with the above mixture. Reheat and serve.

STUFFED TOMATOES.

1 c. stale bread crumbs	Onion juice
$\frac{1}{2}$ c. chopped nuts	6 tomatoes
1 tsp. salt	1 tbsp. melted butter

Mix together the bread, nuts, salt, butter, and onion juice; cut the stem end from the tomatoes, and remove seeds and centers. Fill tomatoes with the mixture and stand in baking pan. Add half cupful of water and bake in quick oven for thirty minutes, basting two or three times. Same mixture may be put in cucumbers or squash.

MEAT SUBSTITUTES.

NUT-AND-CHEESE ROAST.

1 c. grated cheese.	1 tbsp. butter
1 c. chopped English walnut meats.	$\frac{1}{2}$ lemon Salt
1 c. fine bread crumbs	$\frac{3}{4}$ c. water
2 tbsp. chopped onion	A few sprigs of parsley

Cook the onion in the butter and the water until it is tender; add the nut meats, cheese, bread crumbs, salt to taste, the grated rind and the strained juice of half the lemon. Turn into a buttered baking dish, cover with buttered bread crumbs, and bake in the oven for twenty minutes. Decorate with cut lemon and parsley.

NUT LOAF—I.

1 c. chopped nut meats	$\frac{1}{2}$ tsp. onion juice
2 c. bread crumbs	1 tsp. catsup
$\frac{1}{3}$ c. melted butter	1 tsp. salt
1 egg	Paprika

Mix all these ingredients together and add more seasoning

if required. Put into a buttered tin or mold, bake for one hour in a moderate oven, covering the first half of the time. During the cooking baste three times with melted butter. Turn out on a hot dish, sprinkle with chopped nut meats on top and serve with brown sauce.

NUT LOAF—II.

1 c. chopped (not ground) nut meats	4 eggs—beat whites separately
1½ c. milk	2 tbsp. butter or peanut oil
2 c. bread crumbs or shredded wheat	Salt and seasoning to taste

Make a loaf about the size of a small baker's loaf of bread. Bake twenty to thirty minutes in a pan of water.

NUT CROQUETTES.

1 c. stale bread crumbs	1 tsp. salt
½ c. milk	2 egg yolks, beaten
1 c. chopped nuts	

Mix together the ingredients, shape, dip in egg, bread crumbs, egg again, and fry in deep fat.

MOCK FISH.

1 cup ground pecan nuts	1 tbsp. grated onion
1 cup ground black walnuts	1 tsp. salt
2 cups cold boiled hominy	2 hard cooked eggs chopped fine
½ cup bread crumbs	
1 tbsp. chopped parsley	1 well beaten egg

Mix the ingredients together and bake. This dish is most attractive when baked in a buttered fish mold. It requires half an hour in a moderate oven. Decorate with quartered lemons and serve with sauce Hollandaise.

MACARONI CROQUETTES.

1 cup cooked macaroni	1 cup chopped nuts
1 cup thick white sauce	salt, pepper

Chop fine cold cooked macaroni. Make a thick sauce by rubbing together 2 tablespoonfuls of flour with 1 tablespoonful of

butter and add 1 cup cold milk. Stir over fire until thick and smooth, and add 1 teaspoonful of salt and dash of pepper.

When the sauce is cold, add chopped nuts and the cooked and chopped macaroni. Add onion juice if desired. Proceed as with other croquettes, and serve with nut or tomato sauce.

MOCK GOOSE.

1 pint dry bread crumbs	1 pint cold boiled rice
1 pint water	1 tbsp. salt
6 hard boiled eggs	1 tbsp. grated onion
1 pint chopped or ground pecans, hickory, or black walnut meats	1 tbsp. finely powdered sage
	3 well beaten eggs

Cook the dry bread crumbs in water until boiling hot. Take from fire, add hard boiled eggs, finely chopped; the chopped or ground pecan, hickory, or black walnut meats, the cold boiled rice, salt, grated onion and finely powdered sage. Mix thoroughly and add the well beaten eggs. Place on oiled paper in a baking pan, form into shape of a goose, reserving some for legs and wings. Form the legs, stick in each a piece of dry macaroni for the bone and press close to the side of the body. Form the wings and press them down near the back of the paper. This may be done the day before cooking. One hour before serving, brush the goose with melted butter or cottonseed oil, dust thickly with fine bread crumbs and bake in quick oven for an hour, basting several times with melted butter or oil. Serve with apple or gooseberry sauce. In serving, cut off the legs and wings and cut the body into slices cross-wise.

NUT CHOPS.

4 tbsp. peanut butter	1 egg and cracker crumbs
6 tbsp. cream	6 slices bread

Trim all crusts off the bread; spread the bread with peanut butter, cut into three oblong pieces; beat the eggs and add the cream. Dip the bread into the egg and cream, then into cracker

crumbs. Place in an oiled pan and bake in a hot oven until brown.

NUT BREAD—I.

$\frac{1}{2}$ c. sugar	2 eggs
$\frac{4}{4}$ c. flour	2 c. milk
1 tsp. salt—level	1 c. chopped nut meat
$\frac{4}{4}$ tsp. baking powder—level	

Mix dry ingredients. Add eggs, well beaten; two cups of milk. Put in tins and let stand twenty minutes. Bake three-quarters of an hour.

NUT BREAD—II.

$2\frac{1}{2}$ c. flour	$\frac{2}{3}$ c. milk
$2\frac{1}{2}$ tsp. baking powder	1 egg, well beaten
1 tsp. salt	1 c. chopped nut meats
$\frac{1}{3}$ c. sugar	

Sift flour and baking powder; add salt, sugar and nut meats. Beat egg well; turn in milk and add to above. Put in pan and allow to stand ten minutes. Bake in moderate oven.

NUT BREAD—III.

$\frac{1}{2}$ c. molasses	1 c. walnuts
$\frac{1}{2}$ c. sugar	2 c. graham flour
$1\frac{1}{2}$ c. milk	2 c. white flour
1 tsp. salt	1 well beaten egg
$\frac{4}{4}$ tsp. baking powder	2 tbsp. corn starch

Mix flour, baking powder, salt and nuts; add milk, molasses and sugar, then egg. Let stand in pans about thirty minutes before baking.

SALADS.

NUT CHEESE BALLS.

Grate or pass through a food cutter remnants of cheese. If dry, moisten with melted butter or cream. Mix with an almost equal quantity of finely chopped hickory nuts and half quantity of

chopped candied cherries. Mold into balls, press whole nut meat on top. Serve in nest of lettuce leaves with salad dressing.

NUT AND CELERY SALAD.

Mix equal parts of English walnuts or pecan meats cut in pieces, and celery cut in small pieces. Marinate with French dressing. Serve with border of shredded lettuce.

EGG SALAD.

Cut six hard-boiled eggs in halves, crosswise, keeping the whites in pairs. Remove yolks, and mash. Add mayonnaise dressing and finely chopped nut meats. Make into balls; fill whites. Arrange on lettuce leaves with nut meats and dressing.

NUT SALAD.

Mix one cup chopped English walnuts and two cups shredded lettuce. Arrange on lettuce leaves and garnish with mayonnaise dressing.

GRAPE FRUIT SALAD.

Two large grape fruit, peel and cut in quarters; one cup English walnuts. Serve grape fruit and nuts on lettuce leaves with mayonnaise dressing. Garnish with Malaga grapes.

NUT AND PEACH SALAD.

Fill the cavities of halved peaches with a mixture of chopped walnut meats, chopped pears and chopped parsley or celery. Garnish with chopped lemon jelly and serve with mayonnaise.

NOTE.—Any combination of nuts and fruits may be used for a salad.

DESSERTS.

CARAMEL CORN STARCH PUDDING.

1 c. milk	Speck salt
1½ tbsp. milk	White of eggs
1½ tbsp. sugar	2 tbsp. corn starch

Scald the milk in double boiler. Mix corn starch, sugar and

salt thoroughly; add slowly the scalded milk, stirring constantly. Return to top of boiler and cool twenty minutes, stirring constantly for the first five or six minutes, then occasionally. Remove from fire and while very hot fold in lightly, but thoroughly, the well beaten white of egg. When partially cooled, add caramel; put into wet cups or molds, cool and then stand for several hours on ice. Remove from molds. Serve with a soft custard, mashed fresh berries or whipped cream.

MARSHMALLOW PUDDING A LA STANLEY.

$\frac{1}{2}$ lb. marshmallows	$\frac{1}{2}$ c. candied cherries
1 c. heavy cream	$\frac{1}{2}$ c. English walnuts
$\frac{1}{2}$ tsp. vanilla	2 tbsp. powdered sugar

Soak cherries in rum to cover one hour, then cut in pieces. Cut walnuts and marshmallows in small pieces. Whip cream, add sugar and vanilla. Fold in remaining ingredients, mold and chill.

NOUGAT ICE CREAM.

3 c. milk	$1\frac{1}{2}$ c. heavy cream
1 c. sugar	Whites of 5 eggs
Yolk of 5 eggs	$\frac{1}{3}$ c. each of English walnuts
Pinch of salt	filberts and almond meats

1 tsp. each of almond and vanilla flavoring.

Make custard of first four ingredients; strain and cool. Add heavy cream beaten stiff; whites of eggs, beaten stiff; nut meats, finely chopped; flavoring; then freeze.

NESSELRODE PUDDING.

Shell and peel about twenty Italian chestnuts. If the home-grown nuts are used, a double quantity will be required. Roll the nuts until tender, then press through a sieve. Make a rich custard, using a pint of rich milk or cream, the yolks of six eggs and sugar to make quite sweet. Stir over the fire; add the chestnut pulp and a quarter pound each seeded raisins and cleaned currants; cook until thickened; take from the fire, cool; then add

a pint of cream whipped and sweetened. Flavor to taste. Beat well together and freeze.

APPLES PRALINEE.

4 apples	8 tbsp. sugar
$\frac{1}{2}$ c. sugar	$\frac{1}{3}$ c. blanched and chopped
1 c. water	almonds

Core and pare the apples; dissolve sugar in water; then let cool five minutes. In this syrup cook apples till tender, turning them to keep them in shape, and to cook through the apples. Remove to serving dish. Stir constantly while cooking the 8 tablespoonfuls of sugar and the almonds over a hot fire until sugar becomes caramelized. Pour the nuts and caramel on the apples, taking care that none falls on the dish. Cook apple syrup until very thick. Serve hot or cold, with or without cream.

CAKES.

HICKORY NUT CAKE.

2 c. sugar	Whites of 5 eggs
$\frac{2}{3}$ c. butter	3 tsp. baking powder
$\frac{2}{3}$ c. water.	1 c. hickory nut meats
3 c. flour	1 tsp. vanilla

Cream butter and add sugar. Sift flour and baking powder together, and add this and the water to the creamed sugar and butter. Stir well; add nuts and vanilla. Fold in beaten whites and bake in a loaf.

NUT CAKE.

To plain cake batter add one-half cup finely chopped walnut or pecan meats. Bake in shallow pan and cover with boiled frosting, and ornament with halved nuts.

PEANUT CAKE.

Make a good plain cake batter, and for a cake using two cups of flour use one cup of raw peanuts chopped fine and one

cup of raisins. Roll nuts and raisins in flour and add to batter. Bake slowly.

CHOCOLATE NUT WAFERS.

Mix in order given one cup sugar, two squares of chocolate, one-half cup melted butter, yolks and whites of two eggs beaten separately then together, one-half cup flour. Spread very thinly over cooking sheet and sprinkle on it one cup coarsely chopped nut meats. Bake not too brown. Cut in oblongs and remove.

NUT KISSES.

Beat dry the whites of three eggs. Add two cups (scant) of granulated sugar, one-half pound almonds and one-half pound dates. Cut dates and almonds into small pieces. Fold in whites of eggs and drop on fine cracker crumbs in buttered pan. Bake in a slow oven.

BUTTERNUT FRUIT CAKE.

2 c. flour	2 tbsp. molasses
1 c. brown sugar	Butter the size of a large egg
1 c. sour cream	2 eggs, well beaten
1 c. chopped raisins	1 tsp. soda
1 c. chopped butternuts	1 tsp. (each) cinnamon,
$\frac{1}{4}$ lb. citron, cut very fine	cloves and nutmeg.

Cream the butter and sugar, add molasses, eggs, cinnamon, cloves, nutmeg and fruit and stir well. Sift the soda with the flour and stir flour and sour cream into the cake. Bake in a loaf in a moderate oven.

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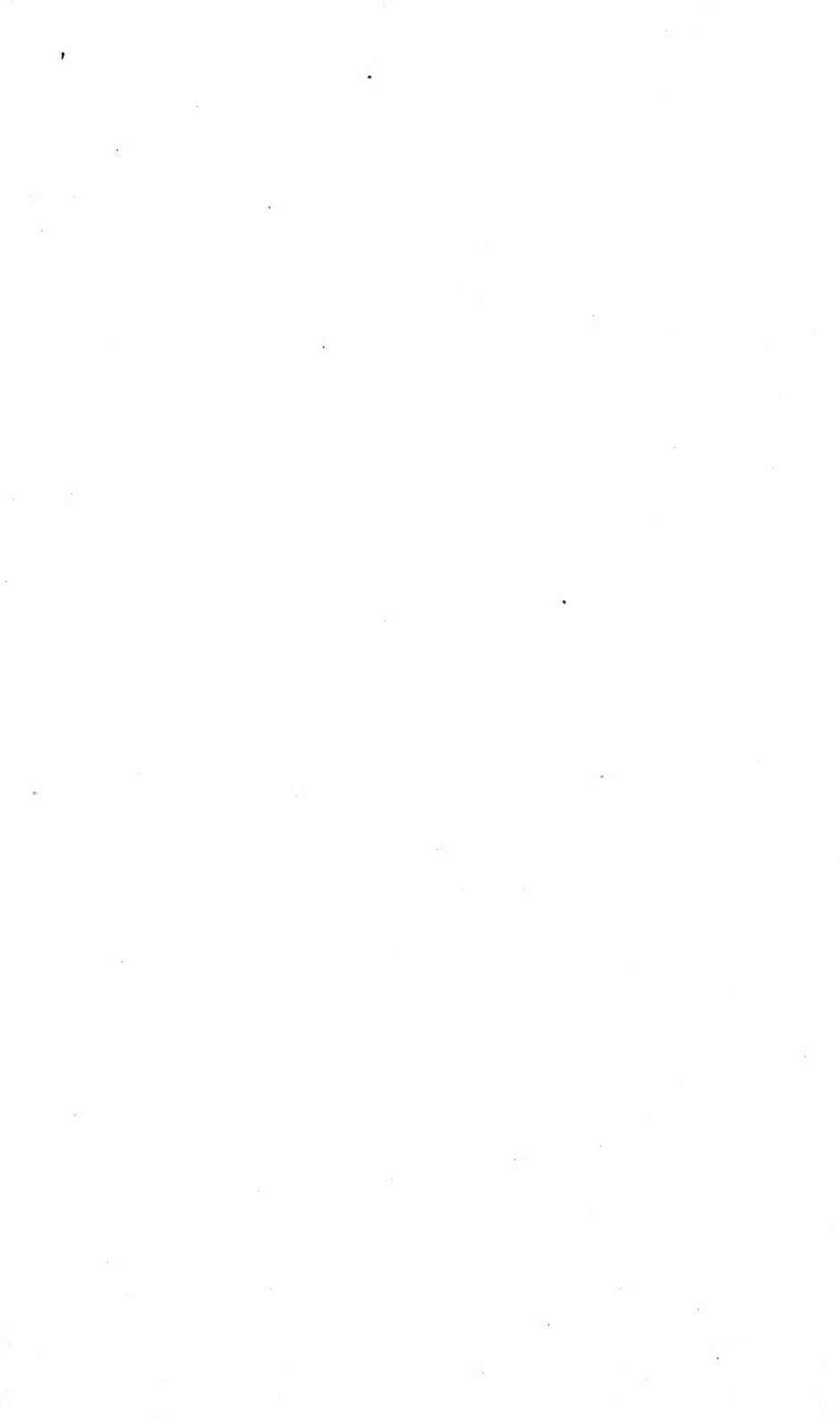
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