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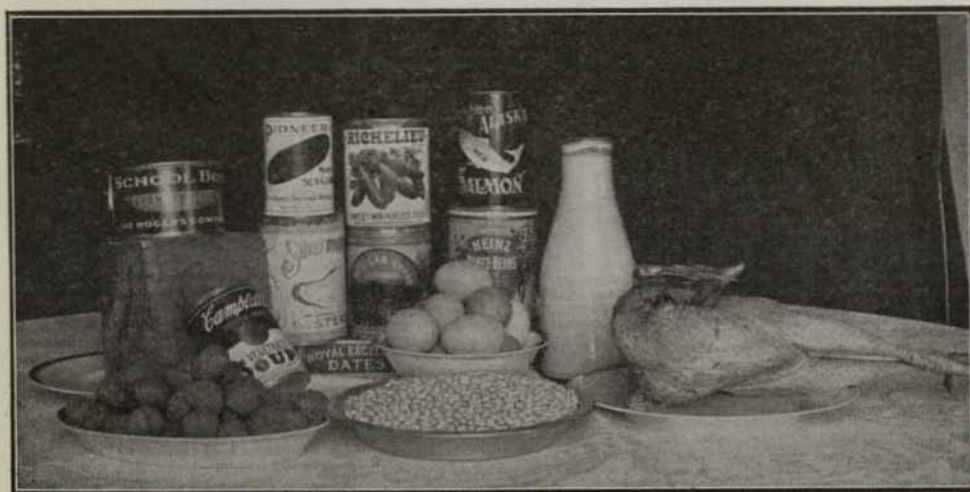
L. W. FLUHARTY,  
*Director*

## Save the Meat

—BY—

AMY KELLY  
ADA ERWIN

Home Economics Department  
Extension Division



COOPERATIVE EXTENSION SERVICE IN AGRICULTURE AND HOME ECONOMICS  
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# UNIVERSITY OF ILLINOIS

## Save the Meat

Home Economics Department  
Extension Division



THE UNIVERSITY OF ILLINOIS

CHICAGO, ILL.

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## MEAT SUBSTITUTES

Due to the reduction of free grazing lands and the high cost of feed, our supply of beef cattle has gradually been reduced with the consequent rise in price. This has made it necessary for many households to substitute some other food in its place. Furthermore since our reduced supply must be used to supplement that of the Allies and to feed our army and navy, it has become the patriotic duty of every household to reduce its consumption of meat. This should result in no real hardship for anyone as the dietary of the average American family has always contained too much meat. The food administration asks us to save beef, mutton and pork. This leaves for our use the usual supply of game, poultry and fish, including little used varieties, as well as the many meat substitutes which may be attractive and palatable.

We know that protein is the building material necessary for growth and repair of body tissues and that it should be found in every diet. These proteins are substances made of complex products which we might call "building stones." Some proteins contain these in the proper proportion to form tissue. These are complete proteins and are found in animal products such as meat, fish, poultry, milk, cheese and eggs. Many other foods contain protein but in these some of the "building stones" are lacking so that alone these foods are not tissue builders. These incomplete proteins are found in vegetable foods such as beans, peas, peanuts, nuts, wheat, corn, oats, barley, rye and buckwheat. Gelatine, altho an animal food, contains only incomplete proteins. To be real meat substitutes, the vegetable foods must be combined with at least one of the foods containing complete proteins.

We should reduce the use of meat to not more than one meal each day and better to three or four times each week saving every scrap, bone and leftover to use in making soups, stews, gravies, creamed meats, chowders, escalloped and casserole dishes. By so doing we shall have the flavor, which makes meat such a popular article of food. It is surprising what delicious dishes can be made with very small quantities of left over meat, fish and poultry. No household should be without its soup pot into which all trimmings, bones and gristle should be put, together with any celery tops, outside leaves of lettuce, cabbage or bits of onion which happen to be at hand. After simmering for some hours, the resulting stock can be used as a foundation for clear, cream, noodle, vegetable or rice soup.

## EGGS

Eggs should be used to replace meat to a greater extent than ever before. They are not always available at prices within the means of all but if every housekeeper would collect her winter supply of eggs in the spring when they are comparatively cheap and preserve them for winter use she could use them more lav-



ishly. As an ingredient in a meat substitute they will supply those "building stones" which are lacking in vegetables and cereals so that even at high prices the use of a few would not be considered extravagant.

Eggs can be safely and economically preserved by the use of water glass solution, lime water solution or one of the commercial egg preservers. Only very fresh, clean and infertile eggs should be used for preserving. These eggs should be kept in a cool, dark cellar and should be stored only in perfectly clean receptacles, preferably large stone jars with stone or wooden covers. Eggs should not be washed, as they are covered with a protective coating of mucus which partly closes the pores and helps to preserve them.

Water glass solution is desirable when relatively small quantities are to be preserved. After thoroly washing and scalding the receptacle dilute the water glass with ten parts of water which has been boiled and then cooled. As the eggs are gathered each day they should be placed in this solution, leaving at least one inch of liquid covering the last layer. Cover the receptacle closely. The solution should be used only for one lot of eggs. Eggs preserved in water glass must be pricked at the large end before boiling or they will break.

Lime water solution, altho cheaper, is perhaps not quite so reliable as the water glass. Slack three pounds of good rock lime in a small amount of water. Add the milk of lime thus formed to three gallons of water. Keep the mixture well stirred for a day, then allow the excess of lime to settle over night and pour off the clear liquid. Pour this over the eggs previously placed in a clean stone jar or barrel.

### MILK

Altho milk is the ideal food for the young child and should be used during the period of growth, it is too bulky to be used as the chief source of protein by the adult even were the supply sufficient. Because of its high protein content, it can be combined with vegetable foods to good advantage. Cereal mushes cooked in milk, milk soups with vegetable or meat flavor, white sauce used in creamed or escalloped dishes are all good ways of using milk in small amounts. Our grandfathers ate bread and milk and mush and milk. Why can't we? Skim milk which has lost nothing except its fat may be used in any way in which we use whole milk except for children's food. Buttermilk and sour milk should be utilized in making quick breads, cakes, griddle cakes, doughnuts, cookies and puddings.

### CHEESE

Cheese, which is composed largely of the protein and fat of milk, may be used as an ingredient in a large variety of meat substitutes. On account of its highly concentrated form it is rather difficult of digestion when eaten alone. However, if it is

finely divided it will cause no digestive disturbances. This is accomplished by properly preparing and combining with bulky foods and those which supply the starches which the cheese lacks.

A form of cheese which we are being urged to use is that made from sour skimmed milk, known as cottage cheese. The fact that it can be easily made at home from a food product usually fed to stock should make it popular in the present conservation program. Creamery men are being instructed in its manufacture by Government experts and in many places it can be purchased for ten or fifteen cents a pound.

Farmer's Bulletin 850 gives the following method for making small quantities for home use:

"One gallon of skim milk will make about one and a half pounds of cheese. If the milk is sweet it should be placed in a pan and allowed to remain in a clean, warm place at a temperature of about seventy-five degrees F. until it clabbers. The clabbered milk should have a clean, sour flavor. Ordinarily this will take about thirty hours but when it is desirable to hasten the process a small quantity of clean-flavored sour milk may be mixed with the sweet milk.

As soon as the milk has thickened or firmly clabbered it should be cut into pieces about two inches square, after which the curd should be stirred thoroly with a spoon. Place the pan of broken curd in a vessel of hot water so as to raise the temperature to one hundred degrees F. Cook at that temperature for about thirty minutes, during which time stir gently with a spoon for one minute at five-minute intervals.

At the conclusion of the heating, pour the curd and whey into a small cheesecloth bag (a clean salt bag will do nicely) and hang the bag on a fruit-strainer rack to drain, or the curd may be poured into a colander or a strainer over which a piece of cheesecloth has been laid. After five or ten minutes, work the curd toward the center with a spoon. Raising and lowering the ends of the cloth helps to make the whey drain faster. To complete the draining tie the ends of the bag together and hang it up. Since there is some danger that the curd will become too dry, draining should stop when the whey ceases to flow in a steady stream.

The curd is then emptied from the bag and worked with a spoon or a butter paddle until it becomes fine in grain, smooth and of the consistency of mashed potatoes. Sour or sweet cream may be added to increase the smoothness and palatability and improve the flavor. Then the cheese is salted according to taste, about one teaspoonful to a pound of curd.

Because of the ease with which the cheese can be made it is desirable to make it often so that it may be eaten fresh, altho if it is kept cold it will not spoil for several days. If the cheese is not to be eaten promptly it should be stored in an earthenware or glass vessel rather than in one of tin or wood and kept in a cold place."



A pound of cottage cheese contains twenty-five per cent more protein than an equal weight of medium fat meat and even if the skimmed milk must be bought costs less than half as much as meat. If mixed with a little salt and sweet or sour cream it makes an appetizing and nutritious dish. There are many ways of combining it with other foods in salad, sandwiches and cooked dishes so that in one form or another it should appear on the table several times each week.

## RECIPES

### CHEESE

#### All American Bunny.

- |                              |                                |
|------------------------------|--------------------------------|
| 2 cups boiling water or milk | 2 tablespoons fat              |
| 1 teaspoon salt              | $\frac{1}{4}$ teaspoon mustard |
| $\frac{1}{2}$ cup corn meal  | paprika                        |
| 2 cups grated cheese         |                                |

Add corn meal gradually to boiling, salted water. Cook. Add fat and grated cheese. Add mustard and paprika mixed with a little milk. When cheese is dissolved serve on toast. Add small pieces of pimento if desired. Substitute tomato juice for water if desired.

#### Cheese Fondue.

- |                                  |                    |
|----------------------------------|--------------------|
| $1\frac{1}{2}$ cups bread crumbs | 1 egg              |
| $1\frac{1}{2}$ cups warm milk    | 2 teaspoons butter |
| $1\frac{1}{2}$ cups cheese       | salt and paprika   |

Soak the bread in the warm milk for a few minutes. Add the butter and cheese to this mixture and when the cheese is melted add the egg slightly beaten. Add seasonings and cook in double boiler until thick. Serve on crackers or toast.

#### Welsh Rarebit I.

- |                                   |                    |
|-----------------------------------|--------------------|
| $\frac{1}{2}$ pound grated cheese | Cayenne            |
| $\frac{1}{4}$ cup cream or milk   | 1 egg              |
| $\frac{1}{2}$ teaspoon mustard    | 2 teaspoons butter |
| $\frac{1}{2}$ teaspoon salt       | Toast              |

Put the cheese and milk or cream into a double boiler. Mix the dry ingredients and add to them the egg beaten well. When the cheese is melted, stir in this mixture and the butter. Cook until it thickens, stirring constantly. Serve on toast.

#### Welsh Rarebit II.

- |   |            |
|---|------------|
| 1 tablespoon fat                                    | Cayenne    |
| $\frac{1}{2}$ pound soft cheese cut in small pieces | 1 egg      |
| $\frac{1}{4}$ teaspoon salt                         | 1 cup milk |
| $\frac{1}{8}$ teaspoon mustard                      | Toast      |

Put the fat in double boiler. When melted add the cheese and seasonings. As the cheese melts gradually add the milk, stirring constantly and lastly the beaten egg. When thickened it is ready to serve on slices of toast.

### Macaroni and Cheese.

- |   |                               |
|---|-------------------------------|
| 1 cup macaroni                                | 3 tablespoons flour           |
| $\frac{1}{2}$ cup grated or finely cut cheese | $1\frac{1}{2}$ teaspoons salt |
| 1 cup milk or tomato juice                    |                               |

Break the macaroni into small pieces and cook until tender in boiling, salted water. Mix the flour with a little of the cold liquid and add to the remaining liquid which has been heated. Cook until it thickens. Add cheese and cook until it is melted. Alternate layers of macaroni and sauce in a baking dish, sprinkle with crumbs and bake in a moderate oven until brown.

### Rice and Cheese.

Substitute boiled rice for macaroni in the above recipe.

### Samp and Cheese.

Substitute cooked samp or hominy for the rice in the above recipe.

### Macaroni Loaf.

- |                                       |                                 |
|---------------------------------------|---------------------------------|
| 1 cup cooked macaroni                 | 1 teaspoon chopped onion        |
| 1 cup cream or milk                   | 1 teaspoon chopped parsley      |
| 1 cup soft bread crumbs               | 1 teaspoon salt                 |
| 1 teaspoon chopped pimentos or pepper | $\frac{1}{2}$ cup grated cheese |
|                                       | 2 eggs beaten                   |

Scald cream or milk, add crumbs, seasonings, cheese, eggs and macaroni. Turn the mixture into a quart baking dish lined with buttered paper, set in a dish of hot water and bake in a moderate oven one-half to three-fourths of an hour. Turn out on a hot platter and serve with tomato sauce.

### Rice with Cheese and Tomatoes.

- |                                 |                 |
|---------------------------------|-----------------|
| 1 cup uncooked rice             | 1 teaspoon salt |
| $\frac{1}{2}$ pound soft cheese | pepper          |
| 1 pint tomato (pulp and juice)  |                 |

Cook the rice in boiling, salted water until partly done.

Drain off the water, add the tomato and seasonings and cook until rice is soft. Stir in the cheese which has been cut in small pieces and serve as soon as this is melted. Two cups of cooked rice may be used but in this case use only one and a half cups of tomato.

### Cheese and Nut Roast.

- |                             |                           |
|-----------------------------|---------------------------|
| 1 cup grated cheese         | 1 tablespoon fat          |
| 1 cup chopped walnuts       | 2 tablespoons lemon juice |
| 1 cup dry bread crumbs      | Salt and pepper           |
| 2 tablespoons chopped onion |                           |

Mix in order given, moistening with water, vegetable or meat stock to the right consistency to make into a loaf. Bake until nicely browned in a moderate oven, basting frequently.

### Cottage Cheese Salads.

The combinations given below should be made of slightly salted cottage cheese and are much more delicious if served with lettuce or other salad greens. They may be dressed with any good salad dressing, such as French, Mayonnaise, or one of the boiled varieties.

Cottage Cheese with:

1. Finely chopped chives or pimentos.
2. Finely cut celery.
3. Finely cut celery and stuffed olives.
4. Chopped nuts, made into balls and rolled in chopped nuts.
5. Pineapple. Serve the cheese on a slice of canned pineapple or cut the pineapple and mix with the cheese.
6. Canned pears or peaches. Fill the cavity in center of piece.
7. Jelly or preserves. Make the cheese into a round or square nest and fill the cavity with the jelly or preserves. It should not be dressed.

### Cottage Cheese Sandwiches.

These may take the place of meat sandwiches in children's lunch boxes or may be used as a luncheon or supper dish at home. Any kind of bread—white, graham or whole wheat—may be used and Boston brown bread is particularly delicious if cut very thin. If mayonnaise dressing is used the butter should be omitted. The following fillings can be used:

Cheese with:

1. Crisp lettuce and mayonnaise dressing.
2. Chopped peppers.
3. Chives.
4. Pickles.
5. Olives or nuts and a little dressing.
6. Chopped raisins, figs or dates make sweet sandwiches.

### Boston Roast.

- |   |              |
|---|--------------|
| 2 cups cooked beans (preferably kidney) | Bread crumbs |
|   | Salt         |
| ½ pound cottage cheese                  |              |

Put the beans thru a meat grinder. Add the cheese and crumbs enough to make a mixture sufficiently stiff to be formed into a roll. Bake in a moderate oven, basting with water and fat. Serve with tomato sauce. A little cooked onion may be added to the roast.

### Variations of Boston Roast.

1. Peas may be substituted for beans.
2. American or any soft cheese may be substituted for cottage cheese.
3. Soup stock or tomato juice may be used for moistening and basting.
4. Nuts may be substituted for the cheese.



## LEGUMES

**Boston Baked Beans.**

- |                       |                                |
|-----------------------|--------------------------------|
| 1 quart pea beans     | Cayenne                        |
| 1 pound fat salt pork | $\frac{1}{2}$ cup molasses     |
| 1 teaspoon soda       | $\frac{1}{2}$ teaspoon mustard |
| Boiling water         | 1 teaspoon salt                |

Soak beans over night in soft water. Drain. Parboil in fresh, soft water. Drain. Pour boiling water over the pork and scrape the rind. Put beans in the pot. Press in the pork. Mix seasonings, molasses and one cup of boiling water and pour into the bean pot. Bake slowly eight to ten hours. Add water when needed. Uncover during last hour to brown. Serve with Boston brown bread.

**Baked Bean Loaf.**

- |                         |                             |
|-------------------------|-----------------------------|
| 1 pint cold baked beans | Salt and pepper             |
| 1 egg well beaten       | 1 tablespoon minced onion   |
| 1 cup bread crumbs      | 2 tablespoons tomato catsup |

Combine, shape into loaf. Bake twenty-five minutes. Serve with strips of broiled bacon on top. Variations: same as for Boston Roast. The egg helps very much to bind the loaf into good shape.

**Baked Bean Croquettes—I.**

- |                        |                                     |
|------------------------|-------------------------------------|
| 1 cup bean pulp        | $\frac{1}{2}$ cup thick white sauce |
| 1 teaspoon onion juice | Salt and pepper                     |

Combine. Allow to stand for two hours. Mold in oblong or round shapes. Roll in fine bread crumbs, beaten egg and again in crumbs. Bake in the oven in small amount of hot fat, about twenty minutes. Turn once while baking.

**Baked Bean Croquettes—II.**

- |                        |                        |
|------------------------|------------------------|
| 1 cup baked bean pulp  | 2 tablespoons fat      |
| 1 cup cottage cheese   | 2 tablespoons flour    |
| 1 teaspoon onion juice | $\frac{1}{2}$ cup milk |
| Salt and pepper        | crumbs                 |

Make a white sauce of fat, flour and milk. Combine with other ingredients, adding bread crumbs to make a stiff mixture and allow them to stand for two or three hours. Shape into croquettes, roll in fine crumbs, slightly beaten egg and again in crumbs. Fry in deep fat or bake in oven.

**Bean Casserole.**

- |                            |                                       |
|----------------------------|---------------------------------------|
| 1 pint boiled kidney beans | 1 cup tomatoes                        |
| 3 medium carrots, cut fine | $\frac{1}{2}$ cup round steak chopped |
| Salt, pepper, celery salt  |                                       |

Sear steak. Combine ingredients. Bake forty-five minutes in covered baking dish in moderate oven.

**Bean Sandwich.**

- |                                  |                                    |
|----------------------------------|------------------------------------|
| 1 cup cold baked bean pulp       | Add 1 teaspoon finely minced onion |
| 1 tablespoon melted fat or cream | Spread on bread                    |

Moisten with salad dressing.

**Peanut Butter Loaf.**

- |  |                          |
|--|--------------------------|
| ½ cup peanut butter                              | 2 teaspoons salt         |
| 1 cup mashed potato                              | 2 teaspoons grated onion |
| 1 egg (beaten)                                   | ½ teaspoon nutmeg        |
| 2 tablespoons finely chopped parsley, if desired | ¼ teaspoon paprika       |

Combine in order given. Put in buttered baking dish, bake in moderate oven thirty-five to forty minutes.

**Nut Loaf.**

- |                              |                           |
|------------------------------|---------------------------|
| 3 cups stale bread crumbs    | 1 tablespoon onion juice  |
| 2 cups milk                  | 4 teaspoons baking powder |
| 2 teaspoons salt             | 1½ cups chopped peanuts   |
| ¼ teaspoon poultry seasoning | Pepper                    |

Add baking powder to peanuts. Combine all other ingredients. Mix the two. Bake in moderate oven forty-five minutes.

**Bean Chowder.**

- |                                |                                 |
|--------------------------------|---------------------------------|
| 2 cups Mexican beans           | 1 pint tomatoes strained        |
| 2 quarts cold water            | 1 cup broken macaroni           |
| 1 medium sized onion           | 2 strips bacon, diced and fried |
| 2 medium sized potatoes, diced | Salt and pepper                 |

Soak beans over night in cold water. Add the onion, cut fine. Cook until beans are tender (about three hours) adding more water as needed, then add the macaroni and strained tomatoes. Season with salt and pepper. About twenty minutes before ready to serve add diced potatoes. Add diced fried bacon just before serving.

**Chili Beans.**

- |                               |   |
|-------------------------------|---|
| 2 cups red Mexican beans      | Chili powder (to taste—dissolve in hot water) |
| ½ pound ground beef           | Salt and pepper                               |
| 1 pint tomatoes               |   |
| 1 medium sized onion cut fine |   |

Combine all ingredients except seasonings. Cook slowly three and one-half hours. Add seasonings and cook another hour.

**Scraple.**

- |                      |                              |
|----------------------|------------------------------|
| 1 cup fine corn meal | 2 quarts boiling water       |
| 1 cup hominy grits   | 1 cup chopped nuts or cheese |
| 2 teaspoons salt     |                              |

Cook corn meal in boiling water. Add other ingredients and nuts before taking off the fire. Pour in a mold and set away. Slice or cut in cubes and saute in fat or roll in cheese and bake. Meat may be substituted for nuts. This is a good breakfast dish.

**Carrot Loaf.**

- |                      |                                |
|----------------------|--------------------------------|
| 1 cup ground carrots | 1 egg, beaten (may be omitted) |
| 1 cup bread crumbs   | 1 cup strained tomato juice    |
| ½ cup chopped nuts   | Onion juice                    |
| 1 tablespoon fat     | Salt and pepper                |

Mix in order given. Shape in loaf. Steam one hour and brown in oven.

## CREAM SOUPS

Cream soups are generally made by combining a thin white sauce with an equal quantity of seasoned vegetable pulp and juice. The thickness of the sauce varies somewhat with the other ingredients but one made of one-fourth cup fat, one-fourth cup flour and one quart milk is the one most commonly used. The sifted vegetables are added to this just before serving.

Some of the variations in cream soups are shown by the following recipes:

### Salmon Soup.

- |                     |                        |
|---------------------|------------------------|
| 4 tablespoons fat   | 1½ teaspoons salt      |
| 4 tablespoons flour | A few grains of pepper |
| 1 quart milk        | Leftover salmon        |

Rub salmon thru a colander and add to the white sauce made of the other ingredients.

### Potato Soup.

Make a white sauce of:

- |  |                   |
|--|-------------------|
| 2 tablespoons flour                        | 1½ teaspoons salt |
| 2 tablespoons fat                          | celery salt       |
| 1 quart milk scalded with a slice of onion | pepper            |

Add two cups of hot mashed or riced potatoes.

### Black Bean Soup.

- |                             |                     |
|-----------------------------|---------------------|
| 1 quart black beans         | 1 piece celery      |
| 4 quarts cold water         | ¼ teaspoon mustard  |
| 2 tablespoons chopped onion | 2 tablespoons fat   |
| 2 teaspoons salt            | 2 tablespoons flour |
| ¼ teaspoon pepper           | 1 lemon             |
| 2 hard boiled eggs          |                     |

Wash the beans and soak them over night in two quarts cold water. Drain and rinse. Slowly cook in two quarts of water with onion and celery. As they boil add more water as needed. When soft rub thru a strainer. Melt the butter, add the flour and then the liquid and cook a few minutes. Serve with lemon and eggs cut in thin slices.

### Baked Bean Soup.

- |                                |                               |
|--------------------------------|-------------------------------|
| 3 cups cold baked beans        | 2 tablespoons fat             |
| 3 pints water                  | 2 tablespoons flour           |
| 2 slices onion                 | 1 tablespoon chili sauce      |
| 2 stalks celery or celery salt | 1½ cups strained tomato juice |
| Salt and pepper                |                               |

Put beans, water, onion and celery in sauce pan. Bring to a boil and simmer thirty minutes. Rub thru a sieve and add tomato and chili sauce. Melt the butter in a saucepan, add the flour and then the liquid and cook until thickened.



**Cheese Soup.**

Make a white sauce of:

- |   |        |
|---|--------|
| 3 tablespoons fat                             | Salt   |
| 3 tablespoons flour                           | Pepper |
| 1 quart milk scalded with a slice<br>of onion |        |

To this add one-half cup grated cheese, serving as soon as it is melted and the mixture is smooth.

**Vegetable and Cheese Soup.**

- |                                  |                     |
|----------------------------------|---------------------|
| 2 tablespoons finely cut carrots | 2 tablespoons fat   |
| 1 tablespoon minced onion        | 2 tablespoons flour |
| 2 cups soup stock                | 1½ teaspoons salt   |
| 1 blade mace                     | 1 cup scalded milk  |
| ¼ cup grated cheese              |                     |

Cook the vegetables in water until tender. Drain and add the stock and mace and cook for a few minutes. Sift and add to a white sauce made of fat, flour, milk and salt. Add the grated cheese just before serving allowing it to melt until the soup is smooth.

**SOME USES OF LEFT-OVER MEAT.****Rice Mold.**

Line a buttered baking dish with cooked rice. Fill with left-over meat which has been ground, seasoned well with salt, pepper and onion juice and moistened with meat stock or cold gravy. Cover with rice and bake in a moderate oven until thoroly heated. Turn out on a hot platter. Serve with tomato sauce seasoned with celery leaves. This may be baked in individual dishes.

**Meat Loaf.**

- |                             |   |
|-----------------------------|---|
| 1 pint boiled macaroni      | 3 small onions chopped fine and<br>fried in |
| 1 pint canned tomatoes      | 4 teaspoons fat                             |
| 1 pint finely cut cold meat | 1 teaspoon salt                             |
| 1½ pint fine bread crumbs   | 1 teaspoon pepper                           |

Butter a two-quart baking dish. Put in layers of macaroni, meat, tomatoes and crumbs. Repeat sprinkling each layer with seasonings. Add one and one-half cups boiling water. Bake slowly one hour. Rice or spaghetti can be substituted for macaroni.