

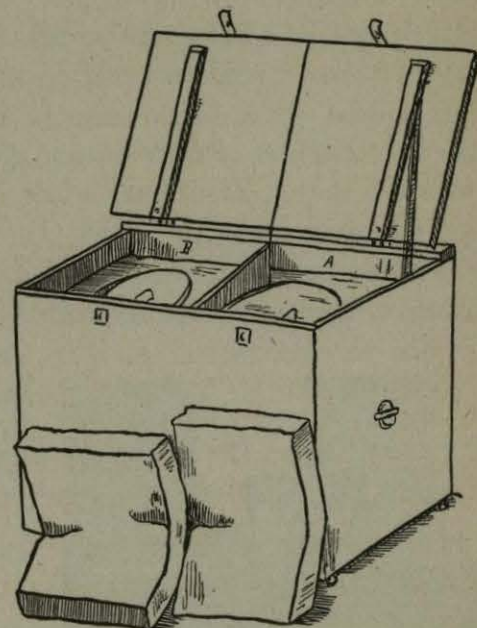
developing a richness of flavor that intense heat does not. Mollie became very expert in using this cooker, and could get a whole dinner with it, starting the cooking early in the morning, or boiling or browning one or two things on the other oil stove. This gave time for work in the garden, or for sewing and reading under the trees.

They were not afraid of leaving the lamp burning all night; and it was comfortable on a winter morning to take from the oven, "piping" hot and ready to eat, the cereal, and scalloped potato, and fish started the night before. If you could visit the Stark family, they would advise you to have such a cooker, too.

Fireless cookers. One day at school the Pleasant Valley pupils made a fireless cooker. This kind of cooker has another way of keeping heat in a box, and it was used many years ago in Sweden. Some traveler in Sweden describes the way he saw a fowl cooked. The dressed fowl was put in a kettle of water, the water was brought to the boiling point on the stove or fire, and then the kettle itself was covered and placed in a box, and the box was covered with some nonconducting material. Where is the heat? In the kettle of water; and, as it cannot escape, it cooks the fowl! Here is a picture (Fig. 111) of a fireless cooker that can be made at home.

A fireless cooker made at school. The pupils of the Pleasant Valley School made one from two wooden boxes, one three or four inches smaller than the other.

They filled in the space between with sawdust below and around the sides. The inner box was lined with white table oilcloth. They were careful to take a box of the size and shape to hold two pails. They could not put sawdust over the pails, and so they made a cover from an old clean blanket, and covered it with the table oilcloth, too. When the hot kettles were placed in the inner box, the woolen cover was laid over them, and the larger box cover fastened down. The outer box was painted white.



Courtesy of Winthrop Normal and Industrial College, Rockhill, S.C.

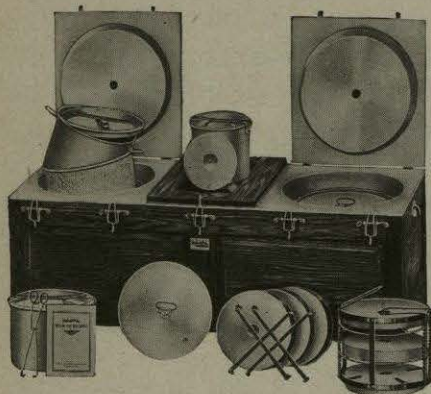
FIG. 111.—A fireless cooker made at home.

Some of the ready-made cookers have a place to slip in a hot iron or soapstone, and hot bricks can be put underneath the kettle in the homemade.

Other ways to make a fireless cooker. There are other things of which the home cooker can be made. Agnes Groves used an old trunk for the outer box, and painted it, as it looked rather shabby. The space be-

tween the trunk and the inner box was filled with paper, pressed in firmly. She pleased her mother by having a stew for dinner one day. First she browned the meat and vegetables in a frying pan on the kerosene stove, put them in a hot earthenware jar with the seasonings, covered them with boiling hot water, covered the jar closely, set it in the cooker on a brick heated on the other burner of the oil stove, and closed the cooker. This was done by half past seven, and at twelve o'clock the stew was ready.

There was room for another kettle in the cooker, and in that Agnes put peas shelled the evening before.



Courtesy of the Caloric Co.

FIG. 112. — One fireless cooker on the market.

Agnes also tried cooking cereal overnight, but she was careful to let the cereal boil on the oil stove long enough to thicken before it went into the cooker, and then the kettle of cereal was placed in a larger kettle of hot water, like a double boiler. She thought the cereal was

better when the hot brick was used.

Agnes and Marjorie used to compare the "fireless" and the Atkinson cooker, and they decided that the Atkinson can do more kinds of work than the fireless,

although the Atkinson uses more fuel. The Atkinson cooker is sometimes called the Aladdin oven. Can you tell why? Did you ever hear of Aladdin and his wonderful lamp?

Steam cookers. Barbara Oakes reported at school that her mother has no patience with either of those contrivances, but that she likes a steam cooker in hot weather, and can get a whole dinner over one burner of the kerosene stove. On page 98 is a picture (Fig. 48) of a steam cooker like Mrs. Oakes'.

Some people like one kind of machine and some another; but we may all help ourselves greatly if we try some experiments, and do not expect too much from any one contrivance.

EXERCISES AND PROBLEMS

1. Can you explain why the fireless cooker will not "brown" food? Can you ever "brown" anything in water?
2. Why does a hole in the Atkinson cooker at the top help the browning process?
3. Make a sketch showing a cross section of the cooker made at the Pleasant Valley School.
4. Make a list of nonconducting materials; of good conductors.
5. Which is a better conductor of heat, air or water?
6. Will a kettle of hot food cool faster in the air or in running cold water? Why?
7. Bake one potato, and boil another of the same size. Which cooks faster? Why?
8. How much oil does your illuminating lamp hold? How long will it burn? Find the cost of kerosene, and then you can tell how much it costs to run the Atkinson cooker per hour.

9. How much does it cost per hour to run a blue-flame oil stove?

10. Can you find out how much it costs per hour for coal or wood?

LESSON 27

THE CARE OF FOOD

How shall we care for food after dinner?

This is a question after every meal; but there is usually more food to put away after dinner, and more careful planning is needed then.

When Mollie and Marjorie cooked the dinner we studied in Lesson 22, they began to plan for the care of food afterward, at the very beginning of operations, by seeing that there were no flies to light on any food placed on the kitchen table. The home-making class had discussed the care of food in the home, and Mollie and Marjorie found that they could apply it all to this particular dinner.

How shall we take care of our food? Here is a simple rule. Keep food *clean*; keep food *cool*; keep food *dry*; keep out insects, mice, and rats.

How shall we keep food clean? Let us begin with ourselves, the cooks. Mollie and Marjorie were pleasant to look at; they were so shining with cleanliness themselves. Marjorie had washed her hair the day before when she came from school; but before beginning work she brushed it tightly back, braided it, and tied a clean ribbon around her front hair to keep back stray

locks. Both of the girls, of course, had clean faces, their dresses and aprons were spotless, and each clean apron had a pocket in it, with a clean handkerchief in the pocket. They scrubbed their hands, used tooth-picks for their fingernails, and pinned on fresh hand towels at one side of the apron. Mollie said when she washed her hands before she sat down at the dinner table that she believed it was the twelfth time at least. A safe rule is this: whenever you are to touch food with the fingers, wash them. It is not considered good manners when in company to touch one's hair or face, and one should never handle food after touching one's person in any way.



Courtesy of Mrs. Helly S. Browne.

FIG. 113. — Neatly dressed for cooking.

Of course, Mrs. Allen's kitchen and pantry were spotlessly clean after the breakfast; so there was no cleaning to do after the last fly had been banished.

Just as this had been accomplished, Frank Allen came in with the sweet corn and potatoes, and in came a fly, too! So Frank killed the fly on the kitchen table, and then washed off the table at his sister's request. There was a pan in the sink to hold clean soapsuds for washing off whatever needed the washing.

A place for washing hands and face. Just outside the Allens' kitchen is an entry where washing of hands

and face, and brushing hair can be done, because it is not a cleanly habit to do this in the kitchen. Before the Allens had running water, there was a stand in this entry, with a basin for the hands and face, and a pump outside; but, when the water was put in, a basin with running water was placed in this entry, too. There is a looking-glass, and in a basket hanging on the wall below are some small towels made of the toweling used for roller towels, as Mrs. Allen does not believe in having different people use one towel. Each towel is large enough for wiping face and hands, and is used only once and thrown into another basket. Mrs. Allen has a washing machine, and puts these towels through a wringer to smooth them, and does not iron them. Muddy shoes must be wiped off outside, or, when they are very dirty, they are changed for comfortable dry shoes that hang in a shoe bag on the wall of the entry, and the muddy rubbers and boots are left in the shed. The boys thought this very fussy at first; but boys do not really dislike being clean, when it is not too much trouble, and besides they found the dry shoes very comfortable. To keep all dirt out of the kitchen is one way to keep food clean.

Washing off food. Even when we gather our own fruit and vegetables with clean hands, there needs to be a careful washing in clean water to free the food from grit and small insects. A small quantity of salt or vinegar in the water helps to remove any tiny insect.

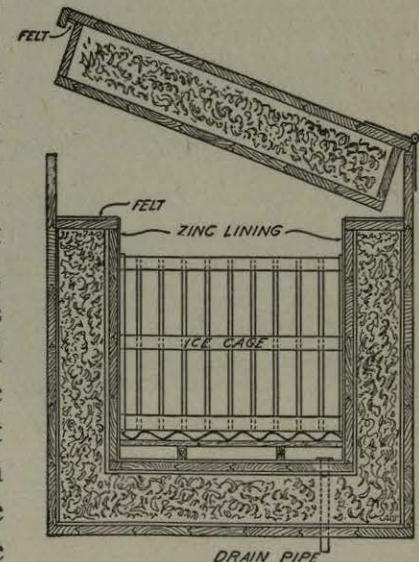
When Marjorie began to prepare the piece of meat

for the pot roast, she held it under the faucet and thoroughly washed off the surface of the meat. If there had not been running water, she would have washed it off in a pan of water, with a little salt added. Mollie remarked that the butcher was very particular himself about the meat, but Marjorie said that one could not be overclean with meat.

Keeping food cool. When the table was cleared after dinner, the most important point was putting away the foods that would most easily spoil,—the meat, the butter, the milk. The meat had been hot when it was put on the table, and it was still warm. Mrs. Allen did not put it into the ice box warm, but, as there were no flies in the kitchen, she stood the meat in the breeze by the window to cool it off. If there had been no breeze, she would have returned the meat to the pot and set the pot in a pan of water.

Ice for keeping food.

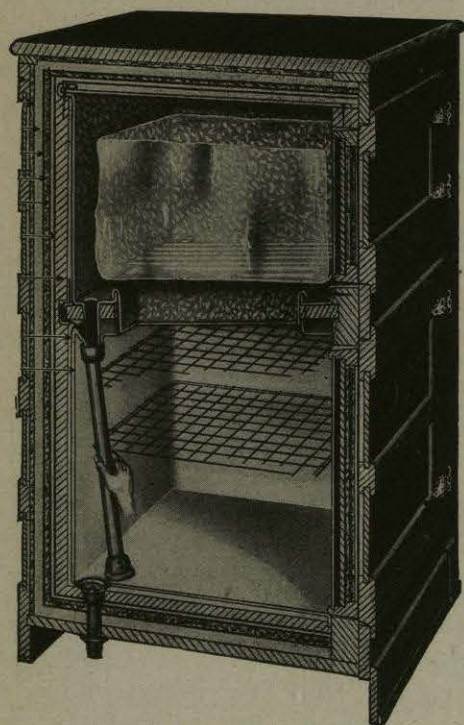
Ice is one of the great comforts in summer, and is a safeguard of our health. Remember in the lesson on



DRAIN PIPE
Courtesy of New York State College of
Agriculture at Cornell University.

FIG. 114. — Mrs. Groves has an inexpensive home-made ice box.

preserving fruit that we learned how the bacteria that spoil our food do not flourish in the cold. More and



Courtesy of Grand Rapids Refrigerator Co.

FIG. 115. — Mrs. Allen's refrigerator is built with double walls made of nonconducting materials.

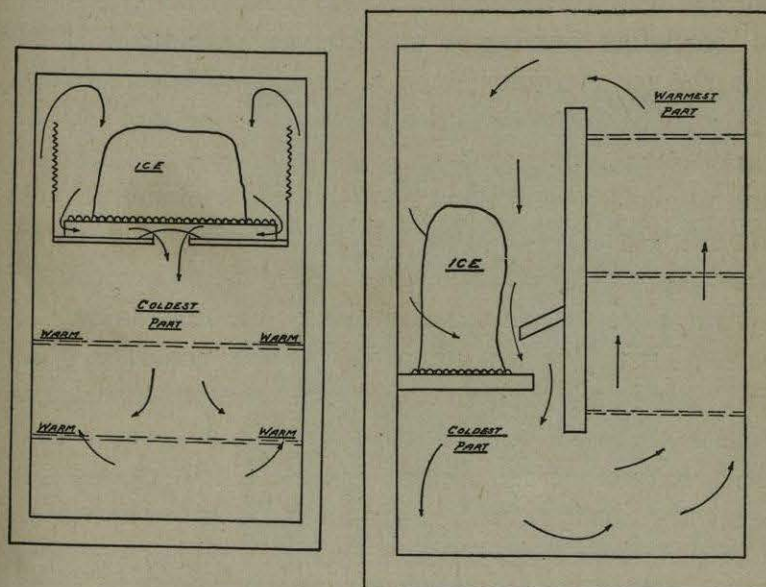
more are farmers planning to cut ice and store it. Mr. Groves of Pleasant Valley dammed up a brook, making a small pond, cleaned out the vegetable matter, and found that he could take enough clean ice from the pond to last all summer. Mr. Groves fenced in his ice pond to keep out the farm animals, and he put in the dam at a spot in the brook above the place where the cows and horses go to drink. He made a double wall and roof to one small building on the place, and packed the ice down in sawdust. Sometimes two or three landowners can combine in ice cutting. One man in Pleasant Valley adds to his income by selling ice to his neighbors.

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He made a double

The farmers who sell milk, cream, and butter find that the better condition of their products makes it pay to have ice.

A well-built refrigerator. Mrs. Allen was very happy with her new refrigerator, and told Mollie that the difference between a summer with ice and without ice, was astounding. The picture (Fig. 115) shows Mrs. Allen's refrigerator, which stands in the coolest part of the pantry. It is important to have air circulating in



United States Department of Commerce, Circular of the Bureau of Standards, No. 55.

FIG. 116. — Diagram showing the circulation in two used types of refrigerator.

the refrigerator. The drawings (Fig. 116) show the movement of the air in two refrigerators and the coolest place in each.

Mrs. Allen's refrigerator is built with double walls made of nonconducting materials, and has ten layers of such in the walls, one of them a closed-in air space. The closets for the food are enamel lined. This is nonabsorptive, and may be kept perfectly clean. A large refrigerator is more economical of ice than a small one, and in the end more than balances the few dollars extra that must be paid for the larger size. Select the coolest spot that you have for the refrigerator.

Care of a refrigerator. Always wash off the block of ice before putting it into the ice chamber. Wash out the ice chamber once a week, and pour a solution of washing soda down the waste pipe. The food chambers should be washed out once a week and dried, and no spilled food allowed to remain a moment. Do not leave the doors open. Have a strong ice pick for breaking ice.

And when we cannot have ice? Perhaps there is a well. Then you can hang very *clean* pails or glass fruit jars in the well that will hold some food at least. This is a simple old-fashioned way; but be sure that the ropes are strong, and the pails tightly closed. It is always a sad event when milk spills into the water.

If the water comes from a spring in pipes, you have an overflow that can be used for cooling food.

What shall we say about a cool cellar for food? For the sake of the family the cellar should be dry, well aired, and not cold and damp. Even a dry, cemented cellar is cooler than the ground floor of the house; but

it is not cold in the way that the old-time farmhouse cellar used to be. When the Stark family made their old cellar into a dry new cellar, they felt that they could not plan for an ice house that year. They dug a place below the level of the cellar and cemented it; they cut a trapdoor in the kitchen floor and made a set of shelves to run up and down on pulleys from the kitchen into the small subcellar. This may seem more trouble than it is worth, but Mrs. Stark and Mollie did not think so.

A box fastened outside the window by strong iron brackets gives a handy place for cooling food, and for keeping some foods that do not spoil quickly. It is easily made from a water-tight wooden box, painted outside and in, with the opening toward the window, having a curtain of table oilcloth. A piece of wire netting set in the bottom of the box lets in the air. Remember, too, that *evaporation cools*. In tropic countries water is cooled in porous earthen jars which



Courtesy of New York State College of Agriculture at Cornell University.

FIG. 117. — These shelves inside a window give a place for cooling food. Netting must be used to keep out flies.

hang in the veranda. When all other means are missing, put the food to be cooled in a jar, wrap a clean cloth around and over the jar, put one end of the cloth in a basin of water, and stand all in a window.

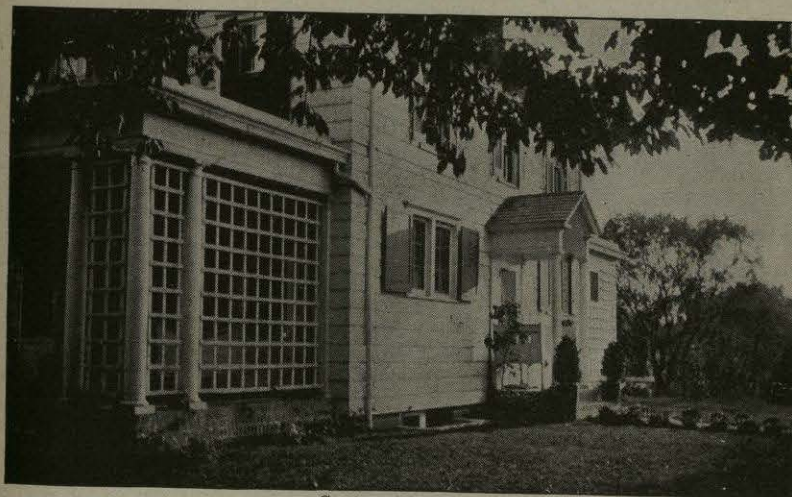
Keeping food dry. This means having dry walls and floors. Have jars and boxes for keeping your materials, label them, and place them in neat rows. Even when food of certain kinds should be kept moist for a time, they still should stand in a dry place. For example, we may wish to keep bread moist by wrapping it in paper, but we must keep the bread box dry and clean.

Mice and insects. It must, indeed, be a well-built house that has no visitors of this kind. Watch for cracks and holes; and, if you find them, use metal over them. Try traps for mice and rats, and buy poison recommended by the druggist; only be careful, then, of other animals.

The Woman's Club of Pleasant Valley offered a prize for something that would actually keep off ants, and as yet no one has taken the prize. Look for ant hills outside and pour in kerosene. In the Starks' old home there were tiny red ants that had their home in some timber that could not be reached. The only trap for them was a saucer of fat in the pantry, in which they collected by thousands. Borax and other powders are recommended, but Mollie Stark remarked that the Stark ants seemed to be especially fond of borax. In one old house they could do nothing better than to put each

of the four legs of a table in a pan of water, and stand the food on the table.

Cleaning off the table. Mollie and Marjorie put the scraps of food from the plates into the clean-food scrap pail to be taken out to the chickens. The pieces of bread from the bread plate were returned to the bread



Courtesy of the New York Agricultural College at Cornell University.

FIG. 118. — A broad piazza for rest after work.

box to be used for toast, and the butter was put in a small bowl to be used for cooking. The left-over mashed potato was kept for potato cakes; and the meat and dessert were finally set away in the refrigerator. The sweet corn was all eaten, but the cobs were given to the chickens to enjoy. Later they were to be collected and burned.

You know that the food remnants, when the farm

animals have had their turn, will serve as fertilizer for plant life. After the bones have been picked, keep them together in a barrel, and finally bury or burn them. Have a compost heap properly covered where the uneaten fragments will decompose and make fertilizer, or bury them at once if preferred.

When the two girls had finished all the work, and went to the broad piazza for rest, Marjorie said, "Isn't this fine training for a girl! Better than mathematics." And Mollie added, "Do you know, there's a kind of mathematics in it all, I do believe." Then Grandmother remarked, "Any reason why you shouldn't have the book kind and this kind, too?"

EXERCISES AND PROBLEMS

1. Why is it so important to take pains in caring for food after every meal?
2. How do you dispose of food waste at home?
3. What do you do with tin cans when you use canned food?
4. Explain why food must be kept cool and dry.
5. How does a refrigerator keep food cool?
6. Can you explain what Mollie meant when she said there was a kind of mathematics in getting a dinner?

REVIEW

1. Give a simple rule for making a dinner menu.
2. Plan the work in preparing a dinner for next Saturday.
3. Do you think we need meat as a food?
4. Is there anything to be careful about in buying meat?
5. Give two experiments that show the effect of different methods of cooking upon meat.

6. When meat is tough, can you improve it by cooking?
7. Give directions for cooking tender meat.
8. You have a five-pound roast. Tell exactly how to prepare it.
9. You are planning to have steak for dinner. How will you cook it?
10. In the country where one raises beef or pork, a large quantity may be killed at one time. How may this meat be preserved?
11. Tell how to cook corned beef.
12. Do you know what foodstuffs vegetables give us?
13. What does cooking do for vegetables?
14. Tell in what way and how long to cook all the common vegetables.
15. Tell how to make two milk desserts and two fruit desserts.
16. Have you ever run a fireless cooker? Can you describe such a cooker?
17. Think of what you can do to be sure the food in your home is clean.
18. What conveniences will you have for keeping food clean?
19. What are some of the important things about using ice? About the care of the refrigerator?
20. What are the points of a good cellar?
21. What can we cook on Saturday to save work on Sunday?