

Housekeeping as a Profession

"Home economics stands for the utilization of the resources of modern science to improve the home life"

Ellen Richards

AIDA CLÉMENT

PROTECTING THE FOOD SUPPLY IN THE HOME

INSECT PESTS

OUR little friends the cockroach, the ant, the mosquito, the fly and the moth always choose the spring as the most fitting season to celebrate a renewed joy in life and lawlessness.

The long drawn battle of the winter has seemed to rout them—the housewife hopes for ever—but with the first warm days of spring back they come in troops and hordes, and extermination is as far from accomplishment as the beating of the Russians.

But, by taking things in season, the housewife may score heavily before the insect armies are recruited to their full strength.

Especially in the case of the clothes moth, the housewife who catches betimes the destroyer of her furs, winter clothes and draperies is one who indeed "looketh well to the ways of her household."

Moths, like most others of the insect tribe, love warmth, darkness and dust. Therefore, if rooms and closets are kept swept, dusted and well aired they will be extremely unpopular with the moths. If it is possible to admit the sunshine lavishly, the sentence to exile has been pronounced, and every fresh food of sunshine helps to carry it out.

GET RID OF ALL DUST.

The dust must also be thoroughly beaten and brushed out of every garment to be packed away, and from all furs. After the most thorough brushing you can inflict, the garments should be hung in hot sunshine for a day.

Have clean trunks, boxes or barrels that have been wiped clean and then sprayed with camphor all ready to receive the garments. Wrap these in newspapers with plenty of camphor balls or gum camphor. Put each parcel into a bag of coarse unbleached muslin, and lay them away in a clean box or barrel.

If the smell of camphor is disagreeable, turpentine is almost as good in discouraging the visits of moths. Neither one nor the other will be necessary, however, if the clothes, after beating, brushing and sunning, are put immediately into one of the big paper moth bags which come for the purpose.

Perhaps the ordinary kitchen cockroach is not as destructive to valuable property as the moth, but it is much more disagreeable. In fact, there is hardly an insect that crawls which has the power of arousing such a lively personal dislike as the cockroach. Even the lady who was "tender over drowning flies" must have smothered a wildly scampering cockroach if she could have caught it.

MAKING ROACHES FEEL UNHAPPY.

There are many varieties of roach foods and roach paste—some of them very efficacious. But those housewives who dislike to have poisons lying around loose prefer to use plain borax strewn thickly over shelves and blown into cracks. Another way is to mix equal parts of borax, sulphur and paris green. This can either be sprinkled around or used in an insect powder spray. As in the case of the plain borax, the roaches for two or three weeks may make a bluff of paying no attention to it, but after a month has elapsed there will simply be no more roaches.

The common red ant is very hard to fight. He is small and is so numerous that his name is legion, and he seems to be everywhere at once. If ants get into the house, the simplest way to drive them out is by the liberal use of oil of pennyroyal. This may be sprayed on cotton-batting and strewn about in small pieces. Fresh pennyroyal leaves spread about the place infested by ants will be quite as effective as the oil.

Another way is to use freely a mixture of borax and red pepper. If there are no small children to be endangered, a small amount of tartar emetic, mixed with an equal amount of sugar, may be moistened with water, put into small dishes and set on the shelves visited by ants. The surest way to keep ants out of the house, however, is to attack their nests. When you find one on the road or in the lawn, it is a wise plan to flood the dwelling with kerosene into which has been stirred a liberal dose of cayenne pepper. This can be poured into the hole from the spout of an ordinary oil can, for it will ruin the grass it touches.

SCREEN AND SWATTER FOR FLIES.

As for mosquitoes and flies, the only remedy seems to be slaughter in infancy, backed up by screens in later life. Kill without mercy every torpid winter fly found about the house, for he is the grandfather fly, and before the summer is ended will number his descendants by the million if his career is not cut short. Screen early and screen thoroughly for both flies and mosquitoes. The local health board, if it is doing its duty, should accomplish the rest by taking care of the breeding places of both.

Much, also, can be done by householders in lessening the plague of both flies and mosquitoes. If all garbage is kept in a closely covered can, which is emptied every day, thoroughly washed, scalded and disinfected; if piles of manure or refuse are forbidden or, if they must be allowed to accumulate, are thoroughly and constantly disinfected with borax, chloride of lime or kerosene, there will be no need for anything beyond ordinarily careful screening to keep these insects out.

If Pantry, Cellar and Refrigerator Are Clean, All Is Well.

By MARGARET HAMELIN.

PUBLIC measures without end are taken to insure the purity of our food supply. Stringent laws affecting the production, manufacture and distribution of nearly all food products make life a burden to the man who adulterates or misbrands the things we eat.

But no law can protect the food after it is delivered at the kitchen door. In cases where the mistress of the house takes seriously the business of housekeeping she makes a point of giving personal attention to the manner in which meats, dry groceries, fruits and vegetables, and especially milk, butter and eggs, are kept in her pantry, cellar and refrigerator. She knows that quite as many cases of illness result from ignorance of the elementary principles of sanitation in the home as arise from wrong conditions in the factory, shop or market, and she sees to it that in her own house the health laws are not broken.



Flies haunt the untidy pantry shelf.

Here is where some knowledge of the science of housekeeping is a help. Any domestic scientist or bacteriologist would tell the puzzled housekeeper that almost the whole secret of keeping food fresh, sweet and in good condition lies in the care given to the storage

ONCE upon a time a certain catsup was condemned by the government microscopist as unfit for use because of the enormous number of bacteria found. The accused manufacturer protested indignantly that no one could do better than he was doing, and challenged inspection.

A casual survey would have indicated that he was right, but the microscope and skilled inspection told a different story. Samples scraped from the vats, kettles, pipes and implements used in manufacture and cleaning showed up the source of infection, though the general appearance was fairly neat.

Casual cleaning with warm water, soft, infected brushes and neglect of the inside of tubes, corners and crevices, while they produced a superficial effect of cleanliness, had really served to incubate the bacteria and spread trouble.

Boiling water, steam, fresh brushes, new tubes and thoroughness cut down the bacterial population, before the astonished manufacturer's eyes, to a very decent figure. He thanked the experts and thereafter kept his factory "invisibly clean," attending to the inside of the platter as well as the outside.

The kitchen may be the perfection of neatness to the eye, yet the places where food is stored may be absolute hotbeds for pernicious bacteria. The milk bottles and other containers may be so carelessly kept as to mean unsafe milk for children or delicate persons; the bread pans and mixers may look clean but be infected; the water in the infrequently washed cooler or unclean filter may be as menacing as that of a swamp, and the utensils for cooking be thrown into a table drawer or left on a shelf where an occasional cockroach or ant can use them as highways for regular traffic.

Boiling water thoroughly applied, the sunning and airing of all containers and utensils and the regular scalding of all wash cloths, brushes, mops and dish-towels spell real cleanliness.

Bacterial uncleanness is the most dangerous of all, yet you may never know its presence until some illness in the family calls it sharply to your attention.

places and to the pains taken to eliminate dust, moulds, wild yeasts and the bacteria which thrive in dirt and darkness.

These infinitesimal living organisms or microscopic plants seem to consider that they have the right of eminent domain throughout the whole realm of food supplies acquired by man. Consequently, their happy hunting ground is in the cellar, milk room, pantry, refrigerator and kitchen. Some of them are harmless, others very dangerous, and still others are so useful as to be actually indispensable, like the yeasts which make bread and beer, and beneficial bacteria which ripen cheese, butter and milk. But even the benefi-

cent bacteria must be kept under a good, strong check or they will multiply and do as much harm as the villains of their tribe.

Seeing that these bacteria are carried on particles of dust, in liquids and on the surface of nearly all foods exposed in the market, the importance of keeping clean not only the foods themselves but all places in which food is kept is easy to understand.

Sunning the cellar is usually impossible, but a properly built cellar can always be kept clean, dry and well ventilated.

But no matter how good the cellar may be, the wise housekeeper will see that it is thoroughly ventilated once a day by opening the

SAFETY FOR KITCHEN APPLIANCES

"YES, I would like to have one, but what's the use? I can't bother to run it myself and a servant would make junk of it in a month!"

So says the innate conservatism of woman when she is urged to depart from the methods of her grandmother and avail herself of the efforts of modern ingenuity to simplify and lighten housework. She would like the work to be cut in half, but it is too much trouble to see that it is done by learning how to do it.

Yet she knows that in the factory, shop or office, or on the farm, her husband has much the best of it in the matter of labor-saving appliances. Vaguely she feels that this is the result of masculine selfishness and that women are rather badly used.

But what man, in installing a new machine in his workshop, would trust to Providence and the unskilled worker, hoping that somehow the machine will be able to run itself without bothering him? And what man would reject the machine because he has either to oversee the running of it or to teach some one else to do it properly?

And in the case of household machinery the proper use and care even of rather elaborate appliances is such a simple matter that to attend to it personally would take but little of the mistress's time. The servant could do it quite as well, but in nine cases out of ten she won't. She is conservative, too. She may not enjoy scrubbing at the washboard and wringing out the clothes by main strength and awkwardness, but she would much rather do it than trust herself in the jaws of an electric washing machine that will do the work, but not in her way. That is why she cannot be left to handle the washer without supervision.

But under supervision, if only for a time, she can learn, just as she learns to do anything else. The chief trouble is that the mistress seldom knows any more about it than she does. Between them the machine, unoled, uncleaned, choked, clogged and maltreated in every way, naturally goes on strike. Then there is another proof ready to hand that the good old way is best and that housework never can be changed.

HOW A MAN HANDLES IT.

Yet the man, when he finds himself confronted with the problem of introducing an unintelligent worker to a new machine, simply stays on the job until it is done. He learns how to handle it himself, and then he keeps at the workman until the running of that machine and the care of it become automatic like the rest of the work.

All that is needed to teach even a stupid or careless servant to use almost any of the household appliances is a sense on the part of the mistress of a real need of the machine,

a little understanding of the principles of running it, and—patience.

Take, for instance, the electric appliances most commonly in use, the vacuum cleaners, cooking appliances, washing machines and irons. All are ruined with fatal ease by the



What can happen to the washing-machine.

Appliances You Can Trust

- ELECTRIC VACUUM CLEANERS.**
Royal, P. A. Geier, Cleveland.
Western Electric, Model 11, Western Electric Co., New York.
Magic, Innovation Electric Co., 885 Hudson St., New York.
Hoover, Hoover Suction Sweeper Co., New Berlin, Ohio.
Bissell, Bissell Motor Co., Toledo.
- ELECTRIC WASHING MACHINES.**
Eag, Motor, Dodge & Zull, 507 East Water St., Syracuse, N. Y.
Judd, Judd Laundry Machine Co., People's Gas Building, Chicago.
Catatract, 1900 Washer Co., Binghamton, N. Y.
Gaianday, Pittsburgh, Gage and Supply Co., Pittsburgh.
- FIRELESS COOKERS.**
Western Electric, Western Electric Co., New York.
Champion, Boss Washing Machine Co., Cincinnati.
- ELECTRIC IRONS.**
Caloric, Caloric Co., Janesville, Wis.
Domestic Science, Toledo Cooker Co., 1336 West Bancroft St., Toledo.
Ideal, Toledo Cooker Co., 1336 West Bancroft St., Toledo.
Lasco, Freres A. Seeley Co., 889 Harper Ave., Chicago.
Thermatic, Diller Mfg. Co., Bluffton, Ohio.
- ELECTRIC IRONS.**
A-Best-O, Dorer Mfg. Co., Canal Dover, Ohio.
Universal, Landers, Frary & Clark, New Britain, Conn.
Simplex, Simplex Electric Heating Co., Cambridge, Mass.
Westinghouse, General Electric Co., Pittsfield, Mass.
Westinghouse, Westinghouse Electric and Manufacturing Co., East Pittsburgh.
- ELECTRIC COOKING APPLIANCES.**
Simplex, Simplex Electric Heating Co., Cambridge, Mass.
Universal, Landers, Frary & Clark, New Britain, Conn.
Westinghouse, Westinghouse Electric and Manufacturing Co., East Pittsburgh.
Hotpoint, Hotpoint Electric Heating Co., Ontario, Cal.

Bacterial Cleanliness Is Very Different from Superficial Neatness.

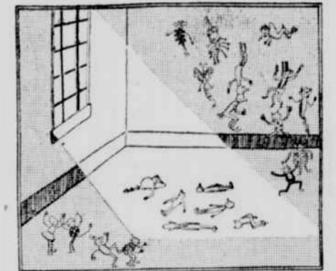
windows, and that it is cleaned once a week. The first step is to open all the windows, see that the floor is cleared of all loose pieces of wood and coal, and that any rubbish is put into the refuse barrel or burned in the furnace.

CLEANING THE CELLAR.

Next brush all the ceilings, walls and partitions, so that they will be free from accumulated dust, and inspect the cellar for evidences of dampness or rat holes. Any sign of leakage, such as mould or rust, should be traced to its source, so that it may be remedied as speedily as possible.

Unless the cellar floor is sprinkled before sweeping, it is best to use a dampened broom to keep down the dust, or to strew it with damp sawdust.

While the door and windows are open it is well to inspect any fruit or vegetables that may be in the storeroom, so that the spread of decay may be stopped by swiftly removing anything that has begun to spot. The windows should not be closed before the cellar is thoroughly dry. If any dampness is noticed the air may be dried by keeping unslaked lime in small metal or earthen dishes put in



Sunlight is fatal to bacteria.

the dampest places. The lime should be renewed as soon as it is slaked.

In this way the cellar may be kept from the dust and dampness that favor the growth of harmful bacteria, and not only will the food keep better, but the whole house will be in a much better condition as regards sanitation than it could possibly be with a damp and dirty cellar.

HOW THE PANTRY SHOULD BE KEPT.

The same rule applies to the pantry. It is not exposed to dampness, like the cellar, but it is exposed to dust. Unless the shelves are kept clean, occasional crumbs, drops or smears of food will furnish a fruitful breeding ground for the busy little organisms that are always on the lookout for food and a comfortable home.

It is well to wipe off the shelves with a damp cloth every day, and once a week to dust all jars, dishes and containers—also with a damp cloth—and to wash the woodwork and floor. A screened window, of course, excludes flies, but it does not prevent the visits of either ants or cockroaches, both of which invade the pantry upon the slightest opportunity. If they do not find food there, they will seek other pastures, and it is impossible to find food on clean floors, walls or shelves.

As soon as groceries are brought in they should be put away carefully either in their own containers, which, of course, are dusted before putting on the shelves, or in the store



ASK UNCLE SAM

He Has Information on All Topics That Interest the Modern Housewife. A Letter to Him Will Bring Expert Assistance in Solving the Problems That Puzzle You.

THE following agricultural publications are full of help for the house cleaning season. Until the free edition is exhausted these can be obtained for the asking at the Division of Publications, United States Department of Agriculture, Washington, D. C. After that the Superintendent of Documents, Government Printing Office, will supply them for five cents apiece (stamps and checks not received).

- Farmers' bulletins: 345, "Some Common Disinfectants."
- 679, "Houseflies."
- 375, "Care of Food in the Home."

or glass jars which are used for cereals, dried fruits and nearly every kind of supply that is ordinarily kept in the pantry. The bread box should be scalded and sunned every time a new supply of bread is put into it, for damp crumbs accumulate mould so quickly that it is not safe to let them collect, even for a day or two.

HOW TO KEEP THE ICE-BOX SAFE.

But it is the refrigerator that needs the greatest care of all, for here the most delicate and perishable foods are stored.



Demons lurk in a dirty ice-box.

A dirty refrigerator, filled with odds and ends of stale food, absolutely fosters the growth of bacteria. If the family escapes illness of one kind or another, it is because its members have tin-lined interiors or are the special care of that Providence which watches over children and fools.

If care is taken every day to brush out crumbs, wipe up spots of grease or dampness and put away food only on clean dishes, once a week is sufficient for a thorough cleaning. But that cleaning must be invariable, and no part of it shirked.

It is not such a formidable task. First, be sure that there is an ample supply of boiling water—merely hot water is rather healthy than otherwise for germs—a box of borax or washing soda, scrubbing brushes and clean, dry cloths.

Empty the water pan and replace it to catch the water used in cleaning. Take out the ice and wrap it in flannel or in a newspaper to prevent waste. Then take out all the food, being careful to cover it from dust.

Next, take out the shelves and racks. These must be scrubbed with a brush in hot soda or borax water, rinsed with clean boiling water, wiped dry and set out in the sunshine, if possible.

WATCH CRACKS AND ANGLES.

Both food chamber and ice compartment should also be scrubbed, as well as the inside of the door and lid, all ledges, edges, etc., where the unobtrusive little germ can find an abiding place. A skewer under a cloth will get into every crack and angle. Rinse with clean boiling water and wipe dry.

Then leave the refrigerator open to dry and air while you take out the waste pipe and scrub it thoroughly inside and out, finishing off with boiling water poured through. If the waste pipe is fixed, scour it with strong borax or soda water, using a long handled brush or swab that comes for this purpose, and rinse with the boiling water poured through.

Lastly scrub the water pan, scald and replace. Cleanliness, thorough and persistent, is the price we pay for the preservation of food as well as health. If the food is sound and clean when it is delivered, and if the home storage places are kept according to these simple rules of sanitation, there will be no trouble about its "keeping" as long as such foods normally remain pure and sweet.

