

MINNIE MAY'S DEPARTMENT.

MY DEAR NIBBES,—

We may not have much sunshine during these short winter days, but what we have I trust you are wise enough to let into your homes. It acts as a tonic, and has a very beneficial effect not only on our feelings, but also on our appearance. To shut the sunlight out of the living rooms is a mistake often made by those thoughtless people who set a higher value on their carpets and cushions than on their health.

Sunshine in our homes leads by easy transition to sunshine in our hearts, and the latter helps us to triumph over all that may be annoying or depressing.

In no part of the house is a bright, sunny appearance more needed than in the kitchen. In very many homes but little thought is given to making the kitchen an attractive apartment, and yet the busy housewife has, perhaps, to pass the whole day there, and sometimes cannot leave it even after nightfall.

As a general rule, in most country homes the kitchen is quite spacious, with ample room for a few comforts in addition to the necessities. Not long since I saw a kitchen—it was in the country—which I thought very cozy and attractive. The floor was of maple, a light and a dark board being placed alternately, and was oiled. The walls were painted a bright but delicate shade. Pretty lambrequins graced the three windows, which were so placed that at all times during the day the bright sunshine could stream into the room. In the lower part of the room stood the range, and a few feet from it a force pump, which brought pure fresh water from the river that flowed near by. Quite close to the pump was a long cupboard, reaching from the floor to the ceiling, divided into four compartments, in which there was space enough for almost everything necessary to the kitchen. There was also a side table and washstand. Behind the range was a back stairway, under which was a closet; there the wood-box (with a board across the top to hold the water pails) was kept; there were also a couple of shelves and some hooks which could be utilized in various ways. No kitchen utensils were in sight.

The upper part of the room was furnished with a large table, some chairs, an easy chair, a sofa provided with a couple of soft cushions, and a sewing machine. Some good pictures were artistically arranged on the walls, and close to the sofa hung a pretty contrivance designed for holding books or papers. A few house plants stood on the window sills, stretching out their leaves to the warm sunbeams, and a clock ticked away industriously, the whole presenting a most inviting and restful appearance. I consider everything that can give comfort or rest, or save unnecessary steps, should have a place in the kitchen.

Do not think that you must do just as your grandmother did, because times have changed very materially since her day, and you have neither her strength nor her endurance. Ward off premature gray hairs and wrinkles by learning the best methods of working and by taking judicious rest.

How can a tired, worn-out woman be a pleasant companion? How is it so many people bestow nearly all the attention on their parlors, which, perhaps, are seldom used, and give so little thought to their kitchens, on the cleanliness and ventilation of which depends the health of their families? Why should we be deprived of the pleasant touches which pictures and flowers give, or the few moments' rest on a sofa or rocking-chair which may be snatched at intervals?

It is not an impossible thing to give sufficient attention to the cooking of the dinner and occasionally get a few fresh thoughts from a favorite author, or keep in touch with the outside world by reading some good magazine. Farming is a profitable and honorable occupation, but those who think they can get along without reading some good agricultural magazine which pertains to their particular line of business will assuredly find themselves behind the times and distanced by their more wide-awake neighbors, who, by systematic reading, are aware of all the latest and best methods of doing their work, and thus are able to accomplish readily what might otherwise have proved an arduous undertaking.

MINNIE MAY.

Domestic Science.

"This new Domestic Science points towards the coming of a much better mental and spiritual state, a purer social life, and promises to be a mighty factor in elevating the masses. It is lifting work from the plane of slavish drudgery and inspiring it with mind and thought. We must all have our daily bread, and the feeding of the family with good bread—the food which nourishes and sustains these bodies—is a sacred task."—Rev. Calvin Keyser.

THE DIGESTION OF FOODS.

Before speaking of the digestibility of different foods, it will be well first to learn a little about the process of digestion; for the digestibility of foods is affected not only by the changes they undergo in cooking, but also by the manner in which they are eaten.

Digestion is the term applied to the changes effected on the food in the alimentary canal, and is partly a mechanical but principally a chemical process. The mechanical work performed by the teeth

in mastication is the first process the food undergoes, and is important, because the more finely it is divided, the more easily will the digestive fluids permeate the mass and bring about the chemical processes which change its composition so that it can be absorbed into the system.

Of the digestive fluids the first is the saliva in the mouth. This is an alkaline fluid containing a ferment (ptyalin), and acts on the starches and sugars, changing them to dextrin. It also has the function of drawing out the gastric juice, which is the second digestive fluid with which the food comes in contact. This is of an acid nature and acts on the nitrogenous foods in the stomach, changing them to peptones, and on the fats, changing them to oils; also curdles milk, changes cane sugar to grape sugar, and checks putrefaction.

The next digestive fluid—the pancreatic juice—contains three ferments: (a) pancreatic diastase, which digests starches which were not changed by the saliva; (b) trypsin, which acts on albumen; (c) steapsin, a fat-splitting ferment. The bile acts with the pancreatic juice in emulsifying fats, and stores up starch and sugar in the form of glycogen for future use as the body requires for heat or work.

Starchy foods by thorough mastication become well mixed with their digestive agent, the saliva, and so the chemical change takes place which makes them soluble. They are changed to dextrin and then to dextrose or grape sugar before being absorbed into the system. Those foods which appear to require very little mastication often cause trouble when this process is slighted. For instance, breakfast cereals are said by some persons to be "difficult of digestion," and to "cause acidity of the stomach," when perhaps the fault lies in improper methods of cooking and eating. Physicians urge that porridge should be well cooked, and eaten with a hard roll or crust of bread, which compels the teeth to do their work. Fruit also forms a suitable accompaniment to certain grains and starches. The reason that all starchy foods are denied to infants under seven months of age is because these digestive fluids are not sufficiently developed to receive them until the teeth make an appearance.

The nitrogenous foods when finely divided by the teeth are more easily dissolved in the stomach and a larger proportion can then be assimilated. One part of pure food material should be accompanied by about four parts of waste material. For invalids it is well to use foods which tax the digestive organs as little as possible; but in the diet of strong, healthy persons predigested foods have no place, for "inactivity" is just as fatal to the digestive organs as to other parts of the body. Persons doing indoor work, with little or no opportunity for outdoor exercise, require nourishing foods, but of more easily digested sorts than those which would properly belong to the diet of a man doing hard, muscular labor, with an abundant supply of pure oxygen.

One lady despairingly complained that she "wanted her little child to have the most nourishing kinds of food, but he loathed meat and brown bread and would not even look at baked beans." She had a little knowledge of the composition of foods, which was proving a "dangerous thing" to her delicate child's welfare, but had failed to take into account the item of digestibility. She was, of course, advised to give him delicately-cooked eggs and milk, with fruit and grains in their simpler combinations.

Next we must consider the effects of cooking on the digestibility of food. "The effect of cooking is to make the food-stuffs more palatable, or more digestible, or both combined. In general the starchy foods are rendered more digestible by cooking; the albuminous and fatty foods less digestible," especially if cooked at a very high temperature. Raw starch is accountable for a great deal of dyspepsia; and half-cooked porridge, doughy cakes, and too-hasty puddings should not be tolerated in well-regulated homes. The object is to make starch soluble, and the little granules must absorb water, swell, and burst before they can be dissolved. For this, heat and moisture are required; and when these granules are coated with fat, as in pastry, made gravies, or fried food, it prevents the absorption of sufficient moisture or saliva to allow of being properly dissolved. All starches are rendered more soluble by long cooking at moderate temperatures or by a temperature sufficiently high to change a portion of the starch to dextrin, as in the brown crust of bread.

Of albuminous foods, the albumen of egg is typical of the class which is found in the albuminous juices of meat, or in the casein of milk and cheese. These are soluble in cold water, but coagulate at a temperature of 160° to 180°, when a jelly-like consistency is attained, but beyond this a higher temperature renders them hard, tough, and soluble with difficulty. In the matter of cooking milk and eggs alone, the temperature is easily regulated by using the double boiler; but the cooking of meat is more difficult. The albumen here is ultimately associated with gelatin and fibrin, which require considerably more cooking. The only solution of the problem is to maintain this moderate temperature for a sufficient length of time to soften the fiber and yet not "cook to death" the albumen.

Fats are readily absorbed in their natural condition, but are decomposed at very high temperatures, and their products become irritants.

The cooking of Milk.—In "Domestic Sterilization of Milk," Dr. Woodhead advises those who

buy milk for table use to insure against the dangers of disease germs, and prevent souring, by heating it over water for twenty minutes after the water begins to boil. The quantity of milk should not be more than the quantity of water by which it is surrounded in the outer vessel.

To Cook Eggs.—Eggs for "boiling" should be fresh, for their quality deteriorates as their age increases. For four eggs use about a quart of boiling water; cover the saucepan and set it on the back of the range where it cannot boil (that is, reach 212°), but will keep at a temperature of about 180° for eight to ten minutes. If you wish so-called "hard-boiled" eggs, leave at this heat for 35 to 40 minutes.

Poached Eggs.—Butter a saucepan, and use sufficient boiling salted water to completely cover the eggs. Break each one into a cup and drop gently in the water; keep at 180° until jellylike; lift carefully with a cake-turner and place on round slices of toast (cut from a loaf baked in a baking-powder can); serve hot.

Cereal with Fruit.—Mix ½ cup of wheat-germ meal with ½ cup cold water and 1½ teaspoonful salt; add to three cups boiling water and cook in a double boiler thirty minutes. Add ½ pound dates, stoned and cut in quarters. Serve with cream and sugar for breakfast, or mould in cups and serve cold as a plain dessert. MARY E. MILLAR.

Puzzles.

1.—CHARADE.

So Charlie, you clever lad,
Could not make my riddle last;
I believe you did not try,
But preferred to "let it pass."

"Good words are worth much" in my mind,
You think them so too,
PRIMUS a poet's "welcome" lines,
I read them through.

TWICE almost felt like skating just
Right FINAL into the air;
Enthusiasm waned, alas,
As the expanse became less clear.

The soft white robes of purity
Have covered that delight,
SECOND I must now snowshoes prepare
Instead of the steely flight.

Say, won't you be one of our party?
The north is delightful for snow;
You spoke of coming with Clara, pray do,
Over the hills we will go.

Yes, that Xmas ADVOCATE
Was elegant COMPLETE.
First shades of primal beauty
An "attire" meet.

Welcome present cover,
So much like the old.
Now I'll cease my rhyming, as
The atmosphere grows cold.

LILY DAY.

2.—RIDDLE.

I'm very small, tender and light,
All insects love in me to crawl;
I'm also useful, for without me
You would have no fruit at all.

I'm rather large, hard and heavy,
Insects shun me away;
I'm no use when in company,
For they would all run away.

I'm a powerful friend on the brightest day
To guard your health and your pleasure,
Being always ready if that is your will
When you are at your leisure.

I'm a powerful friend on the darkest night
To guard your house all around,
Being always ready if that is your will
When robbers around you abound.

WM. S. BANKS.

3.—UNCLE TOM'S CABIN.

F . . . G
6 . . . H . . . 5
7 . . . 8 . . . 4
A . . . B . . .
C . . . D . . .
1 . . . 2 . . . 3

Each dot represents a letter.

From 6 to 5 is a clown; 8 to 4, placed in possession of; 2 to 3, unmoved by pity; 7 to 1, oral account transmitted from father to son; 8 to 2, a place for holding water; 4 to 3, falling in autumn; 6 to 7, a residence of a prince; 6 to 8, to grant; 5 to 4, past tense of bowing the head. Clue: F to G, part of a pig; F to G, female of birds; H to I, mire; G to I, a nickname. Door: down, fear; a state; across, a metal; 1 to 2, one who relates. Windows: A, across, a place for holding grain; a color; down, a stop; to bow; B, across, to help; one of God's works; down, design; sound of a dog; C, across, a verb; part of a bird; down, something for taking seeds out of cotton; a vessel; D, across, a boy; to possess; down, deep; home of a tiger; E, across, a fruit; besides; down, Timothy; soaked with water.

J. S. CRERAR, Brussels.

4.—HIDDEN RIVERS.

1. Did your mamma ask her to come?
2. Did you see them bathing?
3. That weed is a very troublesome one.
4. Then it hit him in the eye.
5. This is for the little girl.

ETHEL McCREA.

5.—CHARADE.

In days before the "golden one,"
Ere Athens' power had begun,
She paid to Minos, king of Krete,
A yearly tribute, death to treat.
One hundred youths and maidens young
Across the whole were borne along;
And in a labyrinthine cave
A banquet to a monster gave.