



THE ART OF PURIFYING HOUSES.

All great reforms have, in times past and present, always run to extremes in their first developments, and thus we see in sanitary matters that the use of disinfectants has become almost an abuse. So many people who notice an offensive drain-odor in their houses are quite satisfied that, having put down the usual powders and disinfecting fluids, they have cured the evil. We cannot too strongly and forcibly bring to the notice of all intelligent persons, that it is worse than useless to use one disagreeable odor to cover up another, with the idea of curing it—you do not cure the evil, you but ignore it—and for all time it should be a proverb, applied morally, socially, politically, and, last but not least, physically, that no evil is ever cured by being ignored.

Therefore do not place carbolic powder boxes, nor sprinkle chloride of lime, &c., where your drain openings exist, merely to distract your nose's attention from the sewer gas which is issuing from some leaking pipe or choked trap—by so doing you but ignore nature's warning that, like the premonitory smoke and rumblings of a volcano, advises you of the eruption of disease to come.

Remember, first of all, that fresh air and fresh water are the supreme king and queen of disinfectants; these being pure and bountifully used, you will not need to employ chemicals, except in the case of infectious and contagious illnesses.

To insure the air-washing or ventilation of your house, look to state of your ventilators, if you have any, that they are kept in repair and perfect working order. If unprovided with these inventions, make your own by keeping your windows opened both top and bottom, if only the width of an inch day and night.

People who sleep with their doors and windows tightly shut, wonder why they get up in the morning feeling weary and unrefreshed, as if they needed more sleep, or had sat up late the night before. The explanation is very simple. They have been breathing air vitiated with the organic matter they throw off from their lungs during their sleep, and are to a certain extent poisoned.

The poor are very slow to believe this; they think you will kill them with cold if you propose to open a window; but just place a saucer of diluted Condy's fluid in the shut-up room for one night, and then show them the scum of organic matter with which it is covered in the morning, absorbed from air vitiated by the breath of even only one person, and they will be surprised.

Teach them that fresh air must never mean a draught; that if the cold or weather is too severe to have their bed-room window open and the door shut, then *faute de mieux* they must open the door; but the window, if possible, is always better, as rooms ventilated from the house have in the air frequently a certain amount of sewer gas.

We turn now to the other great necessary of health—water—as important to the well-being of the house as of the individual. Supposing that your supply is good, take care that the tap from which you draw your drinking-water is the nearest to the main, so that it comes straight in from the street, and is always fresh. Allow no one in the house to drink from any other tap, as water-pipes are often laid near those from which sewage gas can arise, and in any case contain water which has either stood in a cistern or remained in them for some time, and is therefore unwholesome. Few people realize that water "goes bad" by keeping, as certainly as milk does. Never drink water which has stood uncovered in a closed or sleeping room all night; it is thoroughly impure.

Filters are, of course, the best means of securing the purity of water, but as all cannot afford them, we would suggest to the great water companies supplying large towns, that in the same way as the parochial authorities and gas companies undertake the cleansing of dust-bins and care of gas metres, they should supply and supervise a fixed filter, which ought to be attached to the water-works of every house, and placed on the principal pipe coming in from the main. The water company should have this in their

special charge, changing the filtering apparatus and cleansing the filter at stated times, so that in addition to the purification we are assured the water gets before leaving the great reservoirs, every house might have its own filter. This would prevent any chance, however remote, of the spread of fatal disease by means of the water supply. Unfortunately, however, it is in the house that water generally becomes impure. It does not do to wait for inspectors to come and detect the errors of your drains. You must look about for yourself, and if you find any place or places where there is a bad smell, do not only put down disinfectants (which are very useful in their way), but never rest till you have hunted down and unearthed it.

Look to your cisterns, and have them cleaned out (and scrubbed when not made of lead) at frequent and stated times, so that soot and dirt shall not collect in them and poison your water. See that all sinks and traps to waste water pipes are kept thoroughly free from any kind of impurities, such as hair, tea-leaves, grease; nay, go even further, and discover whether your waste pipes have been blocked by extraneous matter, which often happens as there are few servants who do not look upon them as metal boa-constrictors, capable of digesting anything. Of course the mischief may be even deeper down, quite in the drains, but do not let this daunt you, nor hesitate to have the flags of your kitchen or yard taken up, and the evil thoroughly investigated.

It has been suggested that a skilled, intelligent plumber should be employed by the authorities to occasionally go the round of every house, taking special and personal charge of the sanitary matters connected therewith. This would greatly relieve householders, who, with the best desire, rarely understand drainage and sanitary systems enough to detect a flaw quickly. The best plumbers, too, have yet much to learn; but, as a body, they are acquiring the necessary knowledge as quickly as can be expected. After this long chat about air and water, we come at last to house-scrubbing and washing.

All yards, kitchens, and passages in the basement should be whitewashed at least twice a year, and the paint well cleaned or renewed at intervals. If a room is to be cleaned as it should be, the floor must be scrubbed, the paint washed, and the walls brushed with a strong feather-broom. For scrubbing, the servant should have a pail of clean hot water, in which some soda has been melted, a new piece of house-flannel, and a clean scrubbing-brush—you can never make anything clean with dirty implements. Should the floor not be very dirty, ordinary soap rubbed on the brush will be sufficient; but if a great cleaning is required, use soft-soap on the brush instead. Take the flannel to rinse off the soap, wringing it each time to dry the floor. The great secret of good floor-washing is never to do the whole room with the same water, but change it two or three times in a small room, and more frequently in a large one. Servants are very difficult to impress with the necessity of this, as they like to make the same water, as well as other things, serve many purposes. Soft-soap is apt to leave an offensively "washy" smell afterward sometimes; this will soon pass if the windows are opened and a free current of air admitted. To wash paint, which is done best with very little soda in the water, the servant should be careful to begin at the bottom of the door or wall, &c., as any little streams that run down make none of the marks on a wet surface that they do on a dry one. Take a clean chamois leather, wrung out in fresh water, to dry it.

Pails should be always scalded every morning, put out in the air, and scoured with salt and sand, or salt and turpentine, followed by a copious rinsing once a week, especially toilet pails. Never allow a pail to be used for any other purpose than that for which it is intended. Keep each to its own special use. The scrubbing-brush too needs attention, and unless kept clean will smell. Have it well rinsed, and all hair and pieces of flannel fluff picked out of it, every time after using. Cloths and washing-flannels must be thoroughly rinsed in separate waters, and hung out in the open air to dry.

Thus far we have but mentioned the simplest rules and means of common house-cleaning and washing; rules which to disobey will bring their own punishment, and

means which are within the power of every one. Illness makes us, however, still more on our guard, for life depends often on the care we take at such times, and this is not always realized. If a room has to be washed during illness it should be done with carbolic soap, chloride of lime, or a strong solution of copperas in the water. Place small basins of Condy's fluid, diluted according to given directions, about the sick-chamber, and put some in every vessel that has to remain in the room. If the air is offensive, some aromatic vinegar, or stalks of dried lavender burned on hot cinders, and wafted around, will sweeten it; but it is better to admit fresh air if possible. Clothes which have to be removed from a room where a contagious or infectious complaint exists, must be either sprinkled with disinfectants before being sent to the wash (and due notice must always be given to the laundress) or taken to the public fumigatories, and thoroughly disinfected. The same treatment must be pursued with all household linen and bedding after an illness; every bed and pillow used by invalids should be opened, the cover washed in disinfectant water, and the feathers, hair, or wool-stuffing baked at the fumigatories; in some cases it is even advisable to burn and entirely destroy them, but of this the sanitary officers are the best judges.—A. A. *Strange Butson, in Cassell's Magazine.*

LEARN ABOUT THE PULSE.—Every intelligent person should know how to ascertain the state of the pulse in health; then by comparing it with what it is when he is ailing, he may have some idea of the urgency of his case. Parents should know the health pulse of each child—as now and then a child is born with a peculiarly slow or fast pulse, and the very case in hand may be of that peculiarity. An infant's pulse is 140; a child of seven, about 80; and from twenty to sixty years, is 70 beats a minute, declining at four score. A healthful grown person's pulse beats seventy times a minute; there may be good health down to sixty; but if the pulse always exceeds seventy, there is a disease; the machine is working itself out; there is a fever or inflammation somewhere, and the body is feeding on itself; as in consumption, when the pulse is quick, that is over seventy, gradually increasing, with decreased chances of cure, until it reaches 110 to 120, when death comes before many days. When the pulse is over seventy for two months, and there is a slight cough, the lungs are affected. There are, however, peculiar constitutions in which the pulse may be over seventy in health.

PINE CONES FOR FIRE KINDLING.—Almost the universal article used on the Continent for kindling fires are dry pine cones. A couple of these is usually enough to start a fire of dry wood, and several of them contain enough resinous material to start a coal fire without other kindling. They are readily ignited with a match, and are free from dust and insects. In Paris and other large cities on the Continent, scarcely any other than pine cones are used for kindling purposes in the hotels, and it is a wonder to us that they have not been introduced for the same purpose here. We believe a large and profitable business might be made from gathering the cones in pine growing regions and selling them in our cities.—*Scientific American.*

IT BECOMES very difficult to understand what is meant by "indigenous" in botany. A correspondent of the *Botanical Gazette* finds the common purslane in Dallas County, Texas. There "you may go one hundred miles from civilization, break the prairie, and the second summer will be sure to see purslane covering the field." This weed has always puzzled the explorers. It is often found in wild regions, far away from the haunts of man; but when we remember that the bird or the wild beast goes into the wilderness long before man does, and how easy it is for a seed so small as that of purslane to take an excursion on a feather or in a furry coat, this is no proof that it is indigenous.

A NUMBER of notes have recently appeared in *The American Naturalist* showing that several snakes imitate the rattlesnake in vibrating their tails, and thus producing a "buzzing noise," when disturbed or teased. The rattlesnake has usually been regarded as a stumbling-block in the way of evolutionists; but three species of coluber, or racing snakes, produced a buzzing sound by shaking the tail, and thus, as throughout

Nature, there are facts pointing to a reduction to general laws of what seem in superficial observations to be exceptions to general rules.

DOMESTIC.

HOW TO REMOVE STAINS.

Ink and iron-mould can be removed from linen by any acid that will dissolve the red oxide of iron which is found in ink and iron, but care must be taken that the acid is not too strong or the fabric of the goods will be destroyed. Oxalic acid is very good to take out such spots, and salts of lemon also; but both must be carefully used or the cloth will be weakened; and it should be remembered that both are deadly poisons.

To use salts of lemon, crush a little of the salts fine and lay on the ink-spot or iron-mould. Then drop enough hot water into the salts to moisten it. Lay it on a water-plate, having boiling water in the reservoir; or, if no water-plate, put it over a tin plate set over boiling water, but only for a few minutes. Then remove it and rinse quickly. If some stain still lingers apply again in the same manner, or several times may be needed if the spots have been of long standing.

But we have a great repugnance to the use of these acids, both on account of the danger of rotting the cloth and because they are poisonous. A moment's carelessness, especially where there are young children, may be fatal. We prefer to mix equal parts of salt, pulverized starch and soft-soap, and wet them into a paste with clear lemon-juice. Lay the garment in the sun on the grass, or put it in a window where the sun shines hottest; keep it there several hours, or all day if need be, renewing the application every hour or two if once does not prove sufficient. It will be enough if the spots are fresh. When all have disappeared rinse off in cold water; then wash and boil as usual. Do not put the article into the suds until all the stains have been removed.

Or dip the spot in sour buttermilk and dry in the hot sun, re-dipping it several times until the spots are no longer visible; then wash and boil as usual. In either method the application should be put on both sides.

Stains from vegetables or fruit can usually be extracted, if taken in season, by drawing the cloth tightly over a large bowl and pouring boiling water over the spot; but if left to dry they are more difficult to erase. A little soda rubbed on the spot and just moistened with water will remove the stain, but endanger the strength of the cloth. A mixture of ammonia and spirits of wine is safer. The spot should soak in it several hours.—*Mrs. Beecher.*

CROQUETTES OF FOWL OR MEAT.—Mince the meat finely, removing the skin and bones, and fry four small onions in one tablespoonful of butter until brown, then mix them together and dredge the whole with one tablespoonful of flour, and add pepper, salt and ground mace or nutmeg at pleasure. Beat two eggs with one tablespoonful of powdered sugar, and stirring lightly through the mass, set it away until cold. Then make into oblong balls the size of a large pigeon's egg; dip each one in beaten egg and then in crumbs rolled very fine; fry to a rich brown in plenty of boiling lard, butter, or dripping, and serve on a bed of mashed potato, with a light feathery border made by quickly grating a boiled potato directly on the platter.

APPLE CAKE.—Take two cups of dried apples; stew just enough to chop easily; chop as fine as raisins and boil in two cups of molasses till preserved through; drain off the molasses, then add two eggs, one cup of butter, one cup of sour milk, two teaspoonfuls of soda, five cups of flour and spices of all kinds; add the apples and one large cup of raisins the last thing.

PLAIN CORN CAKE.—One tablespoonful brown sugar; one teaspoonful butter or shortening, stirred well together; one cup sour milk; one teaspoon saleratus. Stir in yellow cornmeal until it will run from the spoon; too much spoils it. Bake in a quick oven and let it stand in the tin for a few moments, it will come out so much better.

A SCIENTIFIC journal recommends a strong, hot solution of alum water, as "the best insect destroyer ever known." Apply it boiling hot with a brush to any place infested with vermin of any description, and they must die.