NURSING AS AN OCCUPATION FOR WOMEN.

Before entering on nursing as a profession, there are several very serious considerations to be taken into account. The first and most important one is, Health. "Have you," writes an old superintendent of nurses, "have you sufficiently good health to stand an amount of hard work to which you have never before been accustomed; and that work joined with a large amount of mental work, which draws upon the physical resources as much if not more than mere bodily exertion, and this continued for seven days a week, not for six?" The second consideration is, that the nurse has to do, and must do, many things which are far from pleasant and agreeable, especially to refined and cultivated women. Hence great self-control is requisite, and a determination to accept all the duties of her calling with patience and good temper. Great intelligence is also absolutely necessary for a nurse, without it, she cannot possibly rise to a high rank in her calling. Lastly, a nurse must have a good knowledge of all domestic duties—such as sweeping, dusting, scouring, bed-making, and the rudiments, at least, of cooking. Some knowledge about house-linen is very needful, the various kinds of linen, cotton, blankets, feathers, and hair used; in fact, all the particulars which may be of service in the hygiene of nursing. The greatest obstacle to the general adoption of this profession as a remunerative one by women is the two-fold difficulty of getting suitable training and of finding employment when trained. Those who know anything of the present arrangements of hospitals will acknowledge that many changes must take place before women of the middle and upper-middle classes, or, indeed, any woman of decency and refinement, could study in them with much advantage or comfort. Cases have been known where the nurses have been expected to cater for themselves and to cook their own food, running the risk of being called away before they even had time to eat their poor morsel of badly-prepared food! Under such circumstances, neither health nor work could long be retained. The cause of the many complaints against hospital nursing is, no doubt, the fact that for centuries it has been left in the hands of a very low and uneducated class, whilst now the advancing spirit of the day is attracting towards it women of a higher social standing and educational culture. It is calculated that there are outside the walls of hospitals at least 230,000 sick people in our own country who daily need a nurse's care. The vast field of labor this one fact implies shows us that, when once the needful training can be obtained, no woman need be without employment. * * *

We have been particular in mentioning the difficulties in the way of the would-be nurse, as we fear, in many instances, the romantic halo which has been thrown over the calling has proved the attraction to its adoption. The profession is one of the highest and noblest to which woman is called, but the preceding drudgery is disheartening and painful, and, in order to do any work easily and well, it is needful to learn the rudiments thoroughly, and to train and command others it is first necessary oneself to serve, to learn, and to obey.—*From "Occupations Accessible to Women," in "Cassell's Household Guide," for July.*

DANGEROUS PAPER HANGINGS

The sanitary chemist of Breslau, Dr. Franz Hulwa, reports that he has frequently found not inconsiderable quantities of arsenic in tapestries and hangings sent to him for examination. It was not alone in the well-known bright green paper that arsenic was found, but also in bluish green, gray, brown, and red patterns, corresponding to similar results in other places.

In most cases it was not due to the direct use of arsenical pigments like Scheele's green, Paris green, Braunschweig or Brunswick greens, orpiment, royal yellow, etc., but the arsenical reaction was so strong that it ought not to be passed over in silence. The presence of arsenic was attributable in some cases to impurities or adulterations, sometimes it was referred to additions made to brighten the shades of color. Not infrequently suspiciously bright green paper was printed over with harmless dull green to make it more salable. Such hangings must be the more dangerous because people are deceived in regard to their poisonous characters. In one such case, a dull bluish green pattern was found to contain a surprisingly large amount of arsenic. In another beautiful green and very elegant velvet paper, the arsenic was evidently added to increase the brilliancy of the colors. The amount of arsenic on 1,000 square feet of surface of this paper, enough for a large room, was about 2 grammes, or 30 grains.

Lakes, which are precipitates from alkaline solutions of organic coloring matter by means of alum or chloride of tin, frequently have arsenic added to them to make them brighter and more pleasing. These lakes were made of madder, cochineal, and sandal-wood, but the brightest and most beautiful are the lakes made with aniline colors with the addition of arsenic. In the lakes we meet with a series of dangerous colors previously but little noticed, these colors must now all be suspected of containing arsenic. Reichard of Jena found from 1.96 to 3.49 per cent. of arsenious acid in such lakes which were designated as free from arsenic. Hallwachs, of Darmstadt, found an enormous quantity of arsenic in a very popular Pompeiian red paper hanging. In one French paper, printed with dark red velvet flowers on gold ground, arsenic was distinctly proven by the Reinsch, Battendorf, and Marsh tests, and with Fleck's silver solution.

Arsenic is least suspected in the dull gray or brown hangings. These indefinite mixed colors are frequently made from the residues of different dye pots and contain arsenic, partially for this reason, and partially because of the greater or less contamination of the raw materials used in dyeing with this poisonous substance. These phases of the case were observed both in a yellowish gray paper with gold figures, and one of light and dark pattern, the brown contained 2.1 grammes on a surface of 1,000 square feet. Although the figures are relatively small as compared with those of Sonnenschein, where green papers contained 1.8 to 4.4 grammes of arsenic in a square foot of surface, yet in general the injuriousness of arsenical hangings has been established. Gmelin first proved that living in rooms covered with arsenical paint or paper was very destructive to health; and these facts were substantiated by Oppenheim, Bunsen, Von Fabian, Kletzinski, Phillips, and others. Besides the above mentioned investigators, the following chemists have examined this subject, namely, Gintl, Wittstein, Halley, Williams, Basedow, Vohl, Kirchgaser, Hagar, Hamberg, and others. Recently Fleck has furnished the most striking proofs, by his very interesting and rationally conducted experiments, that not only does breathing the arsenical dust loosened from the walls and hangings injure the health, but that, by the action of moisture and adhesive organic substances, like glue, paste, and gum, the arsenical pigments evolve that terribly poisonous arseniuretted hydrogen gas, which is diffused through the room and may be the cause of dangerous illness. It is desirable, says Hulwa, to direct public attention to the use of arsenical colors in clothing, artificial flowers, toys, window and lamp shades, wafers and other articles. The public must be continually taught that arsenical colors have already done much harm, and are capable of seriously injuring the health, and ought, as much as possible, to be excluded from common use. The sanitary police of Breslau, acting on Hulwa's suggestion, have passed an ordinance forbidding the sale of goods colored with arsenical dyes or pigments. —*Scientific American.*

WHY THE BAROMETER RISES AND FALLS.

First of all, what is a barometer? It is a tube or pipe, closed at one end and open at the other, and made of some transparent material, such as glass, so that it may be seen through. This tube is filled with the melted metal called mercury, and when quite full, the thumb is placed over the open end (so as to keep the mercury from falling out), and the tube is turned upside down. So the closed end is at the top, the open end at the bottom, and if the thumb were removed, the mercury would, of course, run out. But now suppose you wished not to waste any, and so put the open end of the tube into a basin with some more mercury in it, and then removed your thumb, what would happen? "Why, the mercury would all run out into the basin," some one will say. But this is a mistake, as the Italian philosopher Torricelli found out; and whatever size or length of tube be taken, the whole of the mercury will not run out, but a length of about thirty inches of the tube will remain full of mercury, and you cannot make it run out into the basin unless you either pull the open end of the tube out of the mercury or make a hole in the closed end of the tube. This puzzled Torricelli for a long time, until at last the thought struck him that the only thing which was on the mercury in the basin was the air, and that it was probably the weight of the air pressing on the metal which prevented its running out into the basin. "If so," thought Torricelli, "then if I take my tube and basin of mercury up a mountain, less and less of the tube will remain full, for there is evidently less air above the basin at the top of the mountain than at the bottom." You may be sure he didn't wait very long before he made the experiment; and to his great delight, he found the mercury getting lower and lower in the tube, thus proving that it really was the weight of the air that kept it in the tube at all, and so the instrument was called a barometer, which is derived from the Greek, and means in plain English, a "weight measurer." But if the barometer is watched it will be found to contain different quantities of mercury on different days. On a fine day the mercury will, as a rule, stand higher in the tube than on a wet day or just before rain; and now for the reason of this. Why does the barometer rise (or, rather the mercury in it) in fine weather, and fall when it is going to be wet?

. . Now dry air is much heavier than wet air, or air containing steam. The consequence is, that when the air gets moist it becomes lighter, and presses less on the mercury of the the barometer, so more mercury flows out into the basin, and, consequently, less remains in the tube, or as we usually express it, the barometer falls. Now, when the air is very wet, there is, of course, more chance of rain than when it is dry, for rain is formed by the cooling of the steam contained in moist air. *From "Little Folks" for July.*

SHADE TREES.—The custom of having a profusion of trees around the dwelling, almost a mania in some instances, is as unphysiological as it is inconvenient. And when these trees are evergreens, as they sometimes are, the evil is still more apparent, shutting out the light of the glorious sun at all times, but particularly in the winter, when this is especially grateful to all sentient beings. Light is a positive necessity of animal and vegetable life—no more so of vegetable than of animal life. The foliage of these trees is often so thick as to effectually shut out every ray of light, leaving what should be the home, where it is intended that youthful bodies and immortal spirits should be properly reared, dark, damp and desolate, in appearance but little less than a prison-house. Under such circumstances the dampness is everywhere, the darkness is grown so thick as to be felt, mould is on the walls, in the cellar, moisture in the bedding, *malaria* practically filling the house. The carpets are not faded—only mouldy—but the cheeks and lips of the young are, and the nerve, energy, and vigor and endurance are wasted. The inmates may not be tanned and freckled, but in their stead are the pale and cadaverous countenances, the sallow look of blight and ruin. The sore throats, the weak eyes—light is the food of the eye—the flaccid muscles, the general prostration, all indicate the violence inflicted. The whole idea is wrong, nearly or quite suicidal. All nature loves the light, rejoices in the sun, basks in its life-imparting, joy-inspiring and health-evolving beams. Man alone shuns this boon. Cut down those trees, or most of them, if they shut out most of the light from the home; consign them to the stove, and in that way one blessing will follow—warmth, while diseases will diminish.—*Watchman.*

REMEDY FOR INSECT BITES.—When a mosquito, flea, gnat, or other noxious insect, punctures the human skin, it deposits or injects an atom of acidulous fluid of a poisonous nature. The results are irritation, a sensation of tickling, itching, or of pain. The tickling of flies we are comparatively indifferent about, but the itch produced by a flea, or gnat, or other noisome insect, disturbs our serenity, and, like the pain of a wasp or a bee sting, excites us to a remedy. The best remedies for the sting of insects are those which will instantly neutralize this acidulous poison deposited in the skin. These are either ammonia or borax. The alkaline reaction of borax is scarcely yet sufficiently appreciated. However, a time will come when its good qualities will be known, and more valued than ammonia, or, as it is commonly termed, "hartshorn." The solution of borax for insect bites is made thus: Dissolve one ounce of borax in one pint of water that has been boiled and allowed to cool. Instead of plain water, distilled rose water, elder, or orange flower water, is more pleasant. The bites are to be daubed with the solution so long as there is any irritation. For bees' or wasps' stings, the borax solution may be made of twice the above strength. In every farm-house this solution should be kept as a household remedy.—*S. Pierce.*

—There is a factory in Idar, Germany, where the coloring of stones for art purposes is said to be carried on to a greater extent and more perfectly than in any other part of the world, the process pursued consisting converting chalcedonies and red and yellow cornelians into onyxes resulting in the production of admirable specimens, which are known and prized in all the markets of Europe and America. The peculiarity of this process consists in the fact that the ribbons or zones in the different varieties of chalcedony—which in the kidney-formed masses of that substance, lie superimposed—differ in their texture and compactness, but, owing to their similarity of color in the natural state, they can only be distinguished from each other with difficulty. The stone is, however, capable of absorbing fluids in the direction of the strata, and as the strata possess this property in different degrees, it necessarily follows that if a colored fluid be absorbed, and the quantity taken up by the pores of the stone is different from every stratum or zone, a number of tints will be produced corresponding to the number of zones, each being distinct, and colored in proportion to the quantity of the fluid absorbed. In this way a specimen of stone naturally but slightly colored may be rendered equal to fine stratified chalcedony or onyx, and may be employed equally well in the engraving of cameos, or for any other purpose where the variety of color can be rendered available.

DOMESTIC.

PROPRIETY IN DRESS.

Propriety, that is fitness for our purpose goodness in its own kind, and suitability to ourselves at the present time. Fitness of purpose is a very conspicuous element in propriety, and often strikes people at once. But, unfortunately, fashion sometimes leaves it quite out of sight; and girls who wish to dress in the fashion fancy that they can conform in such particulars without injury. But no girl looks well dressed with, *e. g.*, a hat which is no screen, for the purpose of having a hat is to screen the head. No girl looks well dressed without a mantle of some sort in very cold weather, unless the material of her dress tells at once that she cannot be cold. Tell me, for yourselves, whether any article of dress which is smaller than nature intended the organ inside it to be, can be otherwise than a disfigurement? A slender figure, high insteps, small hands and feet, may be as great deformities,- as truly abnormal, and therefore revolting to unsophisticated eyes,—as extreme in the opposite direction. Your good sense tells you at once that as soon as any member is out of proportion with the whole body it is unsightly. But carry on the same thought a step farther, and you will see that articles of clothing which make you look deformed can never be in good taste. The head bears a certain fixed proportion to the figure, the back of the head to the face and to the neck, the waist to the shoulders, the feet to the height. If you are deformed in any of these particulars, we pity you from our hearts, and will do our best to cheer you under your affliction. But to pretend a deformity until it becomes real to simulate a distorted figure which no painter or sculptor could work from—is unworthy of educated persons. First, then, in determining the propriety of any garment, think whether it really answers the purpose for which it is intended, and looks as if it did so. Reject fanciful trimmings and elaborate devices in rough clothing, or wherever mud, snow and rain will come into contact, and clumsy or coarse contrivances for the drawing-room, especially in those articles which represent a lady's linen—that embodiment of refinement and purity. Reject shoes and boots which even look as if they could not be walked in, dresses which do not cover your body, jackets which look too tight, kirts which look as if they could never be free from soil. One more caution: but it is a very serious one, almost too serious, only that your freedom of action must be taken away from you if you neglect it, lest you should run into dangers which we would willingly ignore, but dare not. Reject all out of doors clothing, whether in detail or as a whole, which looks "attractive," "fascinating," or "distinguished." When you are out of doors, you have no business to attract, to fascinate or to be in any way conspicuous.—*Fireside.*

FRIED OMELET.—Three eggs, two gills milk, two tablespoonfuls flour, a little salt and pepper. Fry on a hot griddle.

SUGAR COOKIES (VERY GOOD).—One cup of butter, two of sugar, three eggs, five cups flour, two tablespoonfuls of sour milk (or if sweet milk, add two teaspoonfuls cream tartar sifted in the flour), one small teaspoonful soda and spice to suit the taste. Bake quick.

TO SET GERANIUMS.—Having seen the statement that scarlet geraniums are almost useless to the Flower Mission, as they are such travellers, I call attention to the fact that we find that a mixture of shellac spirit of wine, put into a little can such as is used for oiling a sewing-machine, and a very little of the mixture dropped into geraniums, pelargoniums, and azaleas, "sets" them so that they do not fall, and they travel beautifully from the country to London after being treated in this way. The proportion should be about a tea-spoonful of shellac to two of spirits of wine. The smell caused by the spirits of wine soon goes off, but as the mixture stains the flower a little, it is better used for colored than white flowers. Of course the flowers should be set before they are made into bouquets. This plan has saved us so much annoyance that I think it should be well known.