There is another view, however, to take of this question of dress, apart from that of physical growth and development; and this is, the vast means, strength, and labor bestowed in changing from one form to another, and necessarily taken from something else. Undoubtedly one-third of the strength and best resources of women are expended in this way.

Still another terrible source of waste lies in the strength expended upon the weakness they reproduce. The average baby in the house, instead of being "a well-spring of pleasure," is constant and wearing occupation for two persons at least, and very little pleasure to anybody. So universally is this the case, that when a good, healthy baby is born, and lives, without troubling itself, or others, except for necessary food and warmth, it is looked upon as a wonder, and as an exception to the general rule.

Yet babies might as well be strong, healthy, and happy, as weak, sick, and miserable. It only needs that girls should be first taught how to obtain a body; second, how to clothe it; third, how to keep it.

It may be said, and said with truth, that there are women, as there are mothers, who study fashion only to adapt it to their physical and personal requirements. This is admitted, but it is not the general principle upon which women act, and it is not enough. We cannot make fashion simply utilitarian and sanitary in its object, or it would cease to be fashion; it is therefore our duty as women, and especially as mothers, to subordinate fashion to the higher interests — life, growth, strength, labor, and effort toward perfection.

It is not necessary to sacrifice taste, or a single element of grace or beauty, but it is time to cultivate truer ideas of what beauty and grace really are—it is time to base fashion upon general ideas and principles in accord with natural physical law, which its changes and caprices would not have power to disturb, and which would admit of women being as well dressed as men, without all their thought being given to their clothing. It is time, in one word, for women to ask, instead of "What must I wear?"—"What ought I to wear?"

KNITTING.—A fond husband boasts that his wife is so industrious that when she has nothing else to do she knits her brow.

A CHAPTER ABOUT SOAP.

BY CINDERELLA.

WHEN was soap invented? And how did people keep themselves clean before that time? are two questions often asked; and we propose in the present article to furnish answers to them, and supply information on a subject which is the more interesting as it is closely connected with comfort, health, and decency.

The earliest mention we have of soap occurs in the works of well-known Greek and Roman writers. When Rome spread her power over distant lands, she learned the arts of the people she conquered, and thus it became known that the Germans and Gauls made use of a substance in washing, which in their old language was called *seip*. The Romans named it *sapo*, and our word is *soap*. The writers who mention it describe it as made of goat's fat and ashes mixed together by heat; and there were two kinds, as at present, hard and soft, and also varieties of these kinds, some of which became fashionable at Rome, and were used by the upper classes for dressing their hair as well as washing. Among these sorts, which probably resembled pomatum, there was one known as Batavian froth. We may therefore conclude that soap was invented by the people called barbarians about two thousand years ago.

Before that time, certain natural productions were used in washing; but with them the cleansing of linen or woolen cloth must have been a work of considerable labor, and less perfect than with manufactured soap. In the earliest times the custom was, as it still is among savage tribes, to stamp on the things to be washed, and tread them under foot in water. Homer alludes to this way of washing. Sometimes a lye was made by pouring water on wood ashes; and this was used to cleanse other things — wine-vessels, and images of the gods in the temple, as well as clothes. Egyptian nitre was also used dissolved in water; it is believed that this is the same substance as that mentioned in the Hebrew Scriptures, under the name of *corith*. From Jeremiah's expression, "Though thou wash thee with nitre, and take thee much soap," we are led to believe that even in those early days two sorts of materials for washing were known to the Jews. In some countries, too, there were alkaline springs flowing from the ground; and in the water of these, clothes could be cleansed without soap. The people still make use of them in different parts of Europe. Oxgall was largely employed, and, perhaps more than all, urine. So much value was set upon the latter in Rome, that vessels were placed at the corners of streets to collect it, and carried away when filled, by the scourers, who, in consequence of the unpleasant smell attending their trade, were made to live in a remote quarter of the city. A somewhat similar practice prevails in China at the present day. It was one that prevented defilement of the walls and public thoroughfares, at the same time that it turned to profit what would otherwise have been a nuisance The Emperor Vespasian laid a tax upon the article, levied probably, on those who benefited by the traffic in it. It is still used in some towns of the north of England, where a few years ago servants in private houses were accustomed to sell it to collectors.

Besides these materials, there are several kinds of meal which have cleansing properties, such as oats, barley, and beans. Bran, too, and rice-water, can be used with delicate articles liable to lose their color, and too weak to bear much rubbing. Meal is still employed in dressing certain sorts of woolens, and, as is believed, was similarly employed in past ages, and fuller's earth was much more largely used then than now.

There is also reason to believe that the ancients made use of the juice of the *saponaria officinalis*, or soapwort (bruisewort), a plant found in England, and in most European countries. It grows about eighteen inches high, near hedges and thickets, on a round stem, which, as well as the leaves, is very smooth. The flowers are a pale blush-color, with an oppressive scent, and bloom in August and September. Some double sorts are cultivated in gardens. The sap of this plant forms a lather in water; the leaves serve as soap when rubbed, and will remove spots of grease from cloth. At one time it was applied as a remedy against some kinds of skin disease. A plant similar in nature to this is much used by the peasantry in Spain and Portugal.

Another vegetable production is the fruit of the sapindus, as it is called, a sort of name for *sapo indicus*, a tree that grows in the East and West Indies. The fruit is pulpy, about the size of a cherry, but it requires to be mingled with a good quantity of water, as it is of a very caustic or burning nature. People who use it occasionally in the backwoods of America, if not careful, sometimes find their clothes spoiled by it. This pulp, when thrown into ponds or rivers, will intoxicate the fish. The seeds or nuts were at one time brought to England, and used as waistcoat and gaiter buttons; when tipped with metal they were very durable.

It was at the beginning of the sixteenth century, about 1525, that soap was first made in England; before that time it had been imported from foreign countries. The price was for one sort two cents per pound; for the commoner, one cent. There is reason to know that the Romans had become manufacturers at an early period; for among other remains of that people discovered at Pompeii was a soap manufactory, with a quantity of soap still perfect, although it had been buried seventeen hundred years. The process of making was not very different from that which now prevails; and which, after this short sketch of the history of soap, we next proceed to describe.

The manufacture of soap is one of considerable importance as regards trade as well as health and cleanliness; and the use of it is one of the evidences of civilization. There are five or six kinds made in this country which may be considered as staple articles, besides numerous varieties. It is well known that grease or fat will not mix with water unless something else is combined with it. This something else is called an alkali, and by the mixture of fat and alkali soap is produced. There are different kinds of alkalis, two of which are used in soap-making: potash and soda. Certain plants contain soda; in some parts of the world, Hungary and Egypt, it exists in the earth; in Spain great quantities were once made by burning seaweed, and exported as *barilla*, and in Scotland also, where it was called *kelp*. But these were all more or less impure, and are now seldom used, because a better and cheaper sort is made from common salt. Since the duty on

this article was taken off in 1825, a very pure kind of carbonate of soda is obtained from it; and one advantage attending its use is that the smell of waste lees at soap-houses is less offensive than formerly.

Carbonate of soda contains carbonic acid; this is removed by mixing it with lime, water is then poured over to form a lye, and this is afterward carried into the large copper or boiler provided for the purpose at soap manufactories. With the lye a quantity of tallow is put into the boiler, from ten to fifteen hundredweight of the one, and from 200 to 300 gallons of the other, which, on the average, will give a ton of soap. The whole is boiled together for about four hours, by which time it is generally found that a combination has taken place, and the fat is converted into soap. The fire is withdrawn, and time given to cool; the lye is run off or pumped out, and fresh lye added, followed by another boiling, and so on, three or four times, a little common salt being thrown in toward the last, to assist the separation of the soap. The fire is then put out, the melted material left to stand a short time, after which it is carried in large ladles or buckets and poured into the frames, which may be compared to a sort of wooden well from three to four feet long, fifteen inches wide, and ten or twelve feet high. Some of them will hold several thousand pounds' weight. In these the soap remains two or more days, until it is hard and solid, when the wooden frames are lifted off, the mass is cut into slices about three inches thick with wires, and these, being cut across, form the bars such as are sold in the shops. After being cut in this way, they are piled up in stacks for further drying.

Such is a general description of the method of making soap, and in the main it applies to all kinds; the variations are chiefly in the materials. To make the best white curd soap, none but the best and purest tallow is used, and sometimes olive oil. Mottled soap is made of coarser kinds of tallow and kitchen stuff; and the mottled veins are produced by having very strong lye poured over and stirred into it, just before it is taken out of the copper. Different colors may be given in this way. Yellow soap requires a different mixture; tallow, with a considerable quantity of resin broken small, and a small quantity of palm oil. The best yellow soap should not contain more than one-fourth part of resin, and when cut it will have a bright, waxy appearance, produced mostly by the palm oil. It makes a better lather than mottled soap. If, however, there is too much resin and too little tallow, it is bad, irritating to the skin, and especially injurious to woolens which may be washed with it. Buyers of the article should always remember that low-priced soap is never cheap; the most stinking fat is generally melted up with the resin to make yellow soap; and the commoner it is in quality, the more water does it contain; so that those who buy cheap and bad soap pay at the rate of eight or ten cents a pound for the water inside of it. Dishonest manufacturers will sometimes increase their quantity of soap by throwing dead pigs into the boiler with the fat, and make the lye so strong as to dissolve all but the bones. No one who has smelt the offensive odor of bad soap can believe that it is made of good materials.

The best Windsor soap is made of about nine parts tallow to one of olive oil and soda lye. The scents or perfumes are always added during the melting. Lard is used for some kinds of toilet soaps; they are very white and smooth, and frequently preferred for shaving. There is a great variety of soaps of this class, with names, colors, and scents to please all the fancies of customers. Some of them are made with olive oil; and others are improved in appearance by being pounded in a mortar after the first process of making, and made up a second time.

Soft soap is made with potash lye and oil. Soda is the alkali always used for hard soap; potash for soft soap. In this the lees are not separated after boiling, as with the other; and it is said that the making requires greater care, and is more difficult. Two hundred pounds of oil, seventy-two pounds of potash, and the lye will produce nearly five hundred pounds of soap. The rankest sort of oil is generally used, and the fig-like appearance of soft soap is caused by a small quantity of tallow being mixed with it, and forming into small grains during the boiling. For the best sorts pure oils are used; among them are poppy, linseed, cocoa-nut, almond, and olive oils.

There are also medicinal soaps; some combined with mercury or other metals. One is made with olive oil and oxide of lead; the result is dischylon, so much known and used as plaster. Emulsions and liniments are species of liquefied soap formed by mixing hartshorn, potash, soda, or lime-water with oil; they present a milky appearance. A mixture of oil and lime-water is a good remedy for burns. At some of the large iron-works a supply is always kept in readiness against the accidents which so frequently occur.

Spanish or Castile soap is made from soda and the best olive oil, mottled by the addition of oxide of sulphate of iron. The purest kind is used for pills; their effect is slightly aperient and corrective of acidity of the stomach, and, combined with carbonate of soda, they are sometimes prescribed in gout and affections of the bladder. In some forms, too, Castile soap is an antidote to certain kinds of poisons. But when used as a curative, especial pains should be taken to have it pure. The wickedest of all adulterations are those of medicinal substances.

Soft soap, when made of pure materials, potash, and olive oil, is also valuable for medicinal purposes: some kinds of skin disease, scab, and ringworm may be much better cured by it than by the greasy ointments so often used. The latter not unfrequently aggravate the disease by creating dirt, while soft soap tends to cleanliness. Sulphur is occasionally mixed with it to assist its curative effect; but this should only be done under the advice of a medical practitioner.

The most harmless adulterations which are practised in the manufacture of soap are the mixing of certain kinds of earth or clay and potato-starch with the fat.

CAN AND WON'T.—Mark Twain says: "I am different from Washington; I have a higher and grander standard of principle. Washington could not lie. I can lie, but I won't."

CHOOSING A PROFESSION.—A lady of birth, and leader of fashion, ay, and of intellect too, had three sons. The fond mother, anxious to "teach the young idea," gathered these precious nestlings round her on the sofa one holiday, and explained that her fortune was small, and died with her, and that these three noble boys of hers would have to undertake noble work; in fact, they would have to go out into the world as their father had done, and win their way. "Yes, mamma, yes," cried the earnest little fellows, fully comprehending the mother's plan. Her eyes glistened as she listened to their willing goodness. Visions of one as a general, another as a judge, a third as a bishop, swam before her. "Well, my darlings," she said, "you are good boys to be so willing to work. What would you like to be?" The young voices, without a pause, without a moment's hesitation, full of Claude Duval and Sylvanus Cobb, cried out with one accord—"Highwaymen, mamma!"

WOMEN—MANY AND VARIOUS.

THE BELLES AND THE WALL-FLOWERS.

BY CAROLINE A. MERIGLL.

ALTHOUGH I can recall more occasions than I care to enumerate on which I have been told by the affectionate offspring of lady friends that "Mamma was the belle of her day," I have yet made up my mind that, however great the claims of *these* ladies, belles as a general rule may be catalogued as the girls who do *not* marry, or who do not marry well.

How is this? Simply thus: Fate is against them. For to be adulated for her beauty, or wit, or talent, is to be placed upon a pinnacle so dangerous that few, in the war for prizes of any value, succeed in winning them. The right man, the man of men, the "heart-satisfier," as the Germans have it, rarely seeks the girl or woman who is most surrounded; and she, pushed to the front, brilliant and dazzling though she may seem, has often heart enough—out of sight for the nonce—to aspire only to him, while he holds back in fear. I am not talking of the savagely respectable masculine who thinks it a crime in a woman that she is admired. I talk of him who does not wear his heart upon his sleeve, and yet, ofttimes, fails to penetrate the truth that the beauty of the hour is, in this, like him.

Then, again, the belle has often a mother whose very efforts to attain the goal of her ambition, the final placing of her daughter, defeat their purpose. The right man, him for whom the soul of the belle vainly yearns, after bravely bearing the onslaught of numerous rivals, the sour looks of a homely sister, the frowns of an unfavorable father, will kiss the dust of defeat at last, if not a man of wealth, only because of that most terrible of all his enemies—the belle's maternal parent!

Two chances already — grave ones, too!—against the belle's marrying.

A third is the inveterate malice of lesser women. By lesser I do not mean merely women less handsome—if the belle's belleship be