FLOWING WAVY HAIR, THE REAL HAIR OF OUR RACE

At the moment this picture was taken this hair only curled its ends because of the decreased weight and the increased porousness which prevailed. But although the hair nearer the scalp is apparently of a straight nature it will wave again "naturally" when the hair is worn up in later years.

CHAPTER XVII

STRAIGHT OR NATURAL CURLING HAIR

WHILE men alone became bald in the past as a result of their transgression of natural laws of hair, they have shared with women the gradual loss of that type of hair which we term "naturally curly." According to authorities, naturally curly hair is our birth-right. The encyclopedias attribute to the Caucasian—that is to say, the white race,—"flowing wavy hair," different in appearance and structure from the kinky hair of the African negro and the perfect straightness of the Indian. It is questionable, however, whether race distinction, on the basis of hair growth, can be drawn between what is known as "straight" and "naturally curly" hair apart from the clearly expressed negro's frizz. We find the so-called "flowing and wavy hair" among all races, even in the American Indian and in the Chinese and Japanese.

In the vernacular of the street, our hair is

described to be either "as curly as a Jew's" or "as kinky as a negro's"—or "as straight as a stick," while tea-table talk produces personal declarations, such as: "My hair is absolutely straight"—"Mine is somewhat curly—more so at one time than another and quite pretty during rainy weather or when I am at the shore" or "Mine is always curly, so much so that I sometimes wish it were straighter" or "Mine is just curly enough to fall into large loose waves. . . ."

While all of these varieties of hair are frequently found among the members of one good-sized human family, such variations are unknown among the lower animal types. Much of the interest which I took in the study of hair was due to the fact that in our family of eight brothers and sisters, various hair types were represented and this often led to much childish discussion and speculation.

Popular opinion attributes to hair of the so-called natural curly type a flattened shaft. This is the outcome of various opinions given in the past by people of publicity-seeking trend of mind and with little scientific background. According to them, straight hair is round, but, in

reality, there is no substantial difference in cross-sectional shape between the two. The negro's kinky hair is the only kind which is more ribbon-like than round. The latter's hair is zig-zag by growth which form is due to the anatomy of the negro's follicle, but no such difference exists between naturally wavy and naturally straight hair on our heads. Both kinds grow straight from the scalp.

A mother may anxiously watch her baby's hair growth for several months without being able to determine whether the hair will be naturally curly or straight. If the hair does not begin to curl for several months she may give up hope but very often the ends of the hair—two or three inches, perhaps—will begin to curl and the hair may then develop into naturally curly hair. Yet, even this naturally curly hair cannot be called an incontrovertible fact, such as is the negro's kink. Our natural curl or "flowing wavy hair" varies in extent. The waves or curls become tighter or looser. These variations have such close relationship to the physical condition of the owner that we are able to draw fairly definite conclusions. I overheard a mother tell

a friend about her discovery of an illness. "Her hair refused to curl for two days even though I moistened and combed it," the woman said, "so that I knew something was wrong with her and had the physician examine her. . . ." Instinctively, this mother had stumbled upon an important physiological fact.

The Caucasian's principal hair curling agent is humidity. All porous hair reacts favorably to an application of warm water but it is highly probable that the humidity which is given off through the sweat glands of the body itself, is the most effective curling agent. The child may sit sluggishly at breakfast with her usually curly hair lifeless and nearly straight. A congenial suggestion is made—it appeals to the child. If the idea is connected with some physical exertion, perhaps running or a game with other children, the whole aspect of the child changes within an hour. The dormant system has been aroused, the sweat glands brought to function, filling the hair shafts with moisture so that it quickly assumes its customary curliness.

That the atmospheric humidity bears equally on the curliness of our hair is evidenced by the

influence of high and dry climates—such as are found in Colorado, the Swiss mountains or the North African desert. In such surroundings, the Caucasian's hair will lose its natural curl and will regain it only under the influence of actual perspiration or change to a more humid climate. We find that the reason that our hair acts in this manner is that its structure is comparatively porous so that it absorbs moisture.

In order to curl naturally, hair must absorb within it such humidity as may surround it. The penetration of the humid particles into the hair structure swells it along the line of least resistance—the diameter. This swelling in one direction results in a contraction in the other direction causing the straight hair to curl like a figure six if short. But if the filaments are longer, the pull alternates and waves result instead of ringlets. On the same principle nature curls and waves twigs, branches and leaves along the wayside. The rope-like twigs of many fast-growing plant varieties begin to curl at sunrise and coil themselves into little ringlets when the morning dew expands the tendrils. This formation lasts until the warming rays of the sun

have dried up all the moisture that penetrated the vegetation during the night, and all through the hot part of the day the rod-like twigs are straight again. You may have observed the action of the clothes line which hangs loosely and slack until it is saturated by a rainfall or until wet clothes are hung over it. Then, within a few minutes, the line becomes taut and, should it break under strain, twists itself into knots.

Thus our hair depends upon humidity to make it curl and wave naturally. Therefore, only porous hair shafts can curl naturally. This they will do only to the degree in which they are porous and can absorb humidity. Logically, the stouter the individual threads of a given hair kind are, the stronger will be the action of humidity thereon because the cells of a stout hair will take up more moisture than those of a fine hair. Hence it may be seen that the "flowing wavy" hair of our race, wherever we still find it, will not wave or curl of itself but only under the influence of humidity and then only to the degree in which it is porous.

CHAPTER XVIII

STIMULATION AND DEFEAT OF NATURAL CURLING HAIR

NATURALLY curling hair can be stimulated or defeated by external influences. For instance, it is defeated by the person who dyes her hair and thus injects into the shaft-cells a foreign substance which not only stiffens the filament but reduces—or altogether destroys—the porosity of the hair. Dyed hair, therefore, generally loses its natural curling characteristic. Heated tongs, such as many women use for waving hair, also have an adverse effect on the natural curliness. In this case the hair filaments are pressed between the two heated prongs of the instrument. This pressure, together with the drying effect of heat on the fat-filling of the hair, ultimately manifests its wicked influence. The clever hairdresser, experienced in waving hair which has some though insufficient natural curliness, reduces this peril to some extent by using only