

CHAPTER XII

MEASURING OUR HAIR PRODUCTION

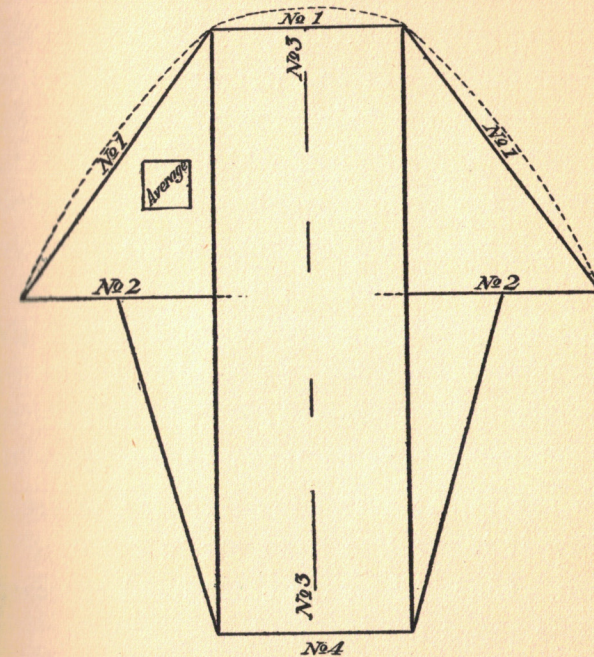
THE human hair growth is generally accepted as averaging one-half inch per month although individually the variations move from five and one-quarter to six and one-half inches per year. This applies to all essential hair growth of the body and statements by individuals to the contrary as are often made must be taken with a grain of salt. There also are variations on the scalp in some cases which have to be looked for. Coarse hair always moves faster than fine, very likely because in the former the cell formation of the shafts is larger.

The first requisite to an attempted establishment of an individual's hair production is to ascertain its rate of growth. For this a few small patches in various places may be shaven, bleached or dyed. After a time period the new growth, which is, of course, always nearest the scalp is then measured and the length production per year is fixed.

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This accomplished, the growth is then calculated by quantity and weight. The weight of hair in bulk would, of course, depend upon the



A diagram representing the outline of a human scalp for hair measuring purposes. If uneven growth is observed on the head it should be marked on the diagram by scale as, for instance, premature bald spots, ring worm or *alopecia areata*.

density in packing of the fifty thousand odd hairs required to fill a square inch area. The weight of human hair per cubic inch I have found to

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be eleven grams, when weighed under a pressure of eight ounces, which pressure is necessary in order to avoid looseness of the hair pack. This relationship of weight and pressure seems to apply to all textures of Caucasian hair.

With the growth and weight established, we next measure the hair growing areas of those periodic eliminations of which particulars are desired. On young people, the first periodic growth is practically confined to the scalp area and the test, therefore, is simple.

For laying out a scalp area, a diagram, such as is here given, might be employed. At first view this diagram seems at fault in that the line marked "1" might be taken as the front line from ear to ear across the forehead where, in reality, it is the line from ear to ear over the crown. Line "2" on the other hand represents the line across the forehead.

Four measurements are needed to measure the scalp area. They are:

1. From the farthest hair edge on a line with the eye and top of the ear across the crown to the corresponding edge on the other side.

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2. From the same point to the corresponding point on the other side across the forehead following the hair line by the shortest route.
3. From the edge of the hair field of the scalp to the base of the neck.
4. The width of the hair field on the neck.

The width of the neck is multiplied with the figure of line "3," after which the four triangles resulting are measured and added.

Scalp areas vary from ninety-five to one hundred and forty square inches on adults. As a rule the hair of young people grows evenly but it is safest to inspect the growth and note any unevenness of density on the measuring plan. Should none be apparent, the average density is located on the part marked "Average" on the diagram because, as a rule, the hair follicles are closer together near the crown than near the edges of the hair field. This inch area having been measured, the yearly cubic growth is ascertained as follows:

Assume, for instance, the scalp area to be 110 square inches, of which the measured square inch produced ten thirty-seconds of an inch and

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the yearly hair growth is six inches, we obtain a total of 6.245 cubic inches of hair as the year's production. Calculating the weight at eleven grams per cubic inch, this would make, roughly, two and one-half ounces.

These calculations require more patience where the hair density varies as in cases of prematurely bald men or women at middle age. In these individuals, too, additional fields—the chest, the arms and the lower legs—have to be taken into account.

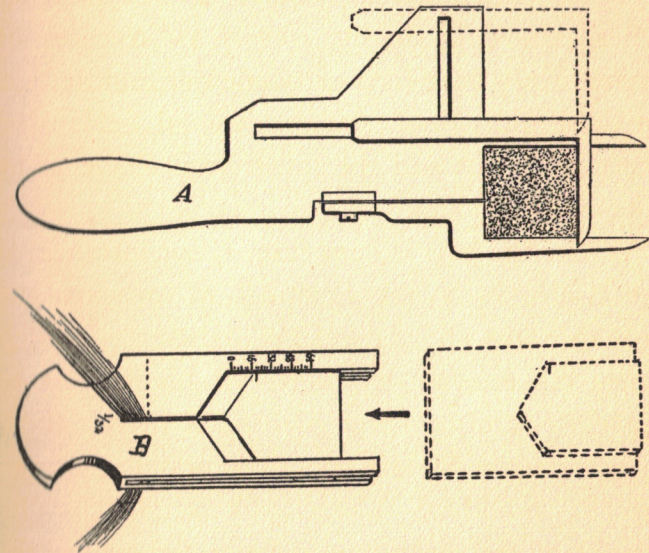
Where the hair is very thin, as for instance on the limbs, it is not practical to measure the growth in the above described manner. In such cases, the easiest and most reliable way is to shave the thinly covered places and permit them to grow again for one month at which time the growth should be shaved and weighed. The weight of this hair should be added to weight calculated to be produced by the scalp.

Instruments "A" and "B" here illustrated will be found helpful in the procedure. "A" is an adjustable square, three of whose sides are fixed while the fourth is movable. With the last open, the instrument looks something like a fork.

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This is slipped into the hair, close to the scalp, and when it has taken in one inch, the sliding side is pushed forward and a perfect square inch area is enclosed. The hair from this area is then tied as close to the scalp as is possible. Instru-



ment "B," with its one thirty-second inch slit and its length graduation in sixty-fourths of an inch, is then used to record the measurements of the separated square inch.

This calculation of hair produce by weight is the only truly accurate method. It should be

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employed by all who treat hair professionally and all who are interested in knowing the truth about their hair, for—how can one judge of loss or gain without a scientific basis of comparison?

CHAPTER XIII

HAIR TREATMENTS

IF, as we have endeavored to point out, hair production is the result of inner nervous activity, and hair depreciation the product of the lowering of our instinctive fires, my readers may, and logically so, complain: "Can we, then, do nothing to save our hair, except by remolding our philosophy of life and our course of existence? That will take generations. Is there nothing we can do now? Are all the hair treating methods and substances of the present day to be considered absolutely without avail?"

We must, with all these persons, plead for a return to sanity and reason. To them we must say: "The case is not altogether hopeless. There are certain things which can be done to save or restore our hair, if done in time and with patience and care. But there are other things which are beyond our control. Whoever desires to treat hair honestly must know his limita-