A lecture delivered to the Hairdressers' Guild, in St. James's Hall, March, 1885, on diseases of the skin of the head affecting the hair, and diseases of the hair : with remarks as to brushing, cutting and dressing the hair / by James Startin.

A LECTURE

DELIVERED TO THE HAIRDRESSERS' GUILD,

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ON

DISEASES OF THE SKIN OF THE HEAD AFFECTING THE HAIR,

AND

DISEASES OF THE HAIR.

WITH REMARKS AS TO BRUSHING, CUTTING AND DRESSING THE HAIR.

BY

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London:

ALABASTER, PASSMORE, & SONS, PRINTERS, FANN STREET, E.C.

disquisitions on the beauty of the hair for I have much to talk to you about.

In the first place, you will see by the diagrams that I bestow much attention to disease of the skin, more especially of the hairy scalp, for, as I said before, you *must* have a "healthy skin to have healthy hair." The diseases of the skin of the scalp, then, to which I shall refer, are as follows :—

1. Eczema of the Scalp.
2. Favus do.
3. Impetigo do.
4. Morbus Pidicularis, or Lousiness.
5. Pityriasis of the Scalp, or Scurfiness.
6. Psoriasis do.
7. Lupus do.
8. Cancer do.
9. Syphilis do. or Syphilitic Alopecia.
10. Sycosis of the beard.
11. Hardy growth.
12. Seborrhœa Capitis.

These are mostly, if not all, the diseases of the scalp that affect the growth of the hair, examples of some of which I will point out to you, as I describe the several diseases, from the drawings before you.

The diseases of the hair that I propose to refer to are as follows :—

	Varieties.	*Situation.*	*Forms.*
1. Alopecia.	Simplex.	Local.	Circinate.
	Furfurosa.		Sparsa.
	Nitida.	General.	Diffusa.
	Calva.		Inveterata.
	Cicatrosa.		

2. Syphilitic Alopecia.
3. Ringworm of the scalp and hair.
4. Favus disease of the hair.
5. Trichorexis nodosa, or Piedra.
6. Ringed hair.
7. Plica polonica.
8. Parasitic Sycosis of the hair of the beard.
9. Parasitic affection of the hair of eyelids.
10. Hirsutes.
11. Splitting of the hair and abnormalities.

The different varieties of baldness alone would afford ample matter for a lecture, but I will endeavour to tell you something about each ; but it will be short, as I propose to speak about the structure of the hair, colour, chemical composition, growth, climate, greyness, sudden greyness, electricity, baldness, dressing, cutting, brushing, hats, washing, hair dyes, restoratives, false hair

cosmetics, fabulous tales, care in transmitting diseases, treatment. Before I commence to describe the different varieties of disease of the skin of the scalp and hair I must say something briefly about the structure of the skin and hair. To be brief, the skin is composed of three principal layers, or divisions.

1st. The outermost, scarf skin, cuticle or epidermis.

2nd. That layer in which the colouring matter of the different human races is deposited, the rete-mucosum, or rete-Malpegii, after Malpegius, its discoverer.

3rd. The true skin, cutis vera, or dermis.

We have also the sebaceous glands and the perspiratory glands, two important factors in our subject; but as this is not an anatomical lecture I must not describe them.

The hair is closely allied in its structure to the skin, from which it springs, and in a rudimentary state it covers the entire body, the exceptions being the palms of the hands and the soles of the feet.

Microscopically, the shape is cylindrical, of the same uniform diameter until it tapers towards its extremity. Running through its centre is a dark line, representing its medullary portion, absent more or less in childhood, filled more or less with cells containing a few granules. It does not contain pigment, as was formerly supposed, as is proved when viewing it as an opaque object. The cortical part surrounding the centre is fibrous, composed of nucleated cells. It is to this corticle part that the hair owes its elasticity, firmness, and colour; the latter property exists as pigment granules, exceedingly minute and arranged in lines. The external coat or cylinder surrounding the central part is fibrous, composed of a number of fibrillæ, which are collectively encased in a scaly envelope, as is evinced if the hair becomes broken. The hair, as it enters the skin at an acute angle, terminates in a bulb. The depth it thus penetrates determines the strength of the hair. As soon as it has entered the skin it is contained in a follicle, regarded as an involution of the skin; at the lower part of this follicle is a papillæ, which conveys the nourishment to the hair cells by means of a very freely supplied flexus of blood-vessels.

We see, therefore, what a very important relation the skin bears to the hair, and how important it is it should be healthy, and well supplied with a free circulation of healthy blood and nerve supply to nourish it. Both the longer hairs and the pubescence or down which covers the human body have a common origin from small oval bodies or bulbs, which are placed deep in the substance of the dermis or in the cellular tissue. Each hair passes obliquely from its root outwards to the surface of the skin, the obliquity following the different directions of the body in its several parts.

They resemble the cuticle very much, both in chemical composition and also in their insolubility; they appear to be produced from a soft glutinous body, which exists in the lowermost part or sheath, which serves as a common duct for the sebaceous glands.

The bulbs are well supplied with blood-vessels. The hairs vary in thickness from 1,300 and 1,700 of an inch. It is probable the growth of hair resembles that of the cuticle, a cyloblast being formed by the pulp, and thus lengthening out into fibres, which become united, the coloury matter being deposited in the exterior layer. Its use is principally protective and decorative. Its production and decay is supposed by some authors to be connected with celibacy or incontinence. Enuchs, I believe, never become bald, and old maids and barren women, from Shakespeare's witches down to our times, have been remarkable for their crinous developments. Having now described to you the elements of the structure of the hair, I will proceed to relate to you the diseases of the skin of the scalp which affect its growth. I have arranged the diseases as nearly as possible in chronological order; the first that comes under our notice, and is one of the commonest affections of the skin of the scalp prejudicial to the growth of hair, is *Eczema*, derived from the Greek εκζεω, to bubble forth. It is usually seen as an eruption of minute vesicles or blisters, clustered together on a red and inflamed surface, attended as well as preceded by a sense of itching. The vesicles soon become opaque, and give rise to minute scales.

This disease may be developed on any portion of the body, but it is especially frequent upon the scalp, and more often in infancy. It is in early youth that we should especially notice and relieve these affections, as so much depends on the healthy after-growth of the hair in adult life. But age obtains no freedom from Eczema of the scalp; it may occur as late in life as 70 years. If the disease is allowed to run its course it mats the hair together, and you can understand how it disturbs its growth. If it continues for a long period, the deep tissues of the skin become involved, and the roots of the hairs may become injured, and the hair fall out. In this case the disease is a cause of partial baldness, and is entitled to the name of scalled head. Sometimes it resolves itself into a chronic state of branny desquamation, which is so often a serious drawback to a healthy crop of hair.

The next disease we come to is *Favus*, a comparatively rare eruption of the scalp in this country, more common in Ireland, but nevertheless important, and in my description of Diseases of the hair, I shall allude more particularly to it, as it has a parasitic vegetable character peculiar to it.

We recognize it as an eruption of light yellow coloured crusts, pierced by one or more hairs. The appearance of the hair is dull, and its elasticity is completely destroyed. The external surface is observed to be covered with circular spores, which tends to split up the hair longitudinally, and at length totally disintegrate it. The hair is thus diseased in its whole length and the bulb is involved. If the disease become chronic and the hairs fall out, the follicle is destroyed and permanent baldness results. The skin in such patches

becomes thick, hard, and dry. This disease is contagious, and occurs mostly among children who reside in damp and unhealthy situations. It may be contracted from animals, as you will see from the specimen of a mouse that I now show you that was sent to me by Dr. Purdon of Belfast. All the children of a family contracted the disease, and mice were caught, of which this was one, affected likewise, no doubt all contracted the disease from these animals, in this instance. The disease commences in this instance in the layers of the epidermis, the hair follicle becoming affected secondarily, the hair falling out, affected by the pressure caused thereby on the root.

Impetigo again is characterized by an eruption of yellow crusts, found in clusters, attended by more or less inflammation of the skin of the scalp. It is frequent in early life, in the adult it is seen on those parts of the face and head that are covered with hair, as the scalp, eyebrows, beard, or whiskers. The hair, although matted together, is unaltered in condition, however chronic the disease becomes. If severe, it is not unfrequently followed by loss of the hair of the scalp, eyelashes, or beard.

The next disease of the scalp we come to is *Morbus Pedicularis*, or lousiness of the scalp. It seems almost unnecessary to refer to this disease as it occurs mostly amongst those that are unclean in habits, and is seldom seen in the upper classes of society. It is due, as you must all know, to an invasion of the Pediculis Capitis, or head louse, which, as soon as it gets into the hair, breeds most rapidly, and deposits its young on the hair in a most tenacious manner. If the parasite is allowed to continue its life, it soon causes severe disturbance in the skin of the scalp, causing nasty sores and ulcerations. Fortunately it can soon be destroyed, and as soon as the life is gone, the skin and hair rapidly resume their natural growth.

Pityriasis Capitis, *πίτυρον*, *bran*, the flakes of which, it is said to resemble, is distinguished by an eruption on the scalp of small, thin, white scales, which have all the characters of the ordinary epidermic scales. It is unattended with any discharge, and is not contagious, but it is often accompanied with intense irritation. It is commonly known as excessive dandriff or scurf, diffused as minute scales amongst the hair. It is one of the commonest, and one of the most troublesome enemies to the natural growth of hair. The most common kind is that which occurs in infancy, and would seem to be often caused by the constant use of a hard hair-brush or tooth-comb, the bane of all nurseries: or too much soap to the part. It is frequently seen in advanced life, and appears like a cloud of dust when the hair is disturbed. In this eruption of the scalp, the hair should be cut moderately short, and a soft brush used, and washed once or twice a week with egg-wash and warm water. This prepares the skin nicely for other medicaments, as they may be necessary.

Psoriasis Capitis. Psoriasis being one of the commonest affections of the skin in England, also in its course affecting the scalp. In character, it is much like the preceding eruption. But the disease occurs in patches of dense scales, rather larger than those of Polyriasis, and more obstinate to treatment. It is collected together in ridges, and groups around the roots of the hair ; whilst scattered amongst the hair itself are flakes of cuticle, often in great quantity, hindering and stopping its growth.

The next three eruptions that I shall refer to, viz., *Lupus*, *Cancer*, and *Syphilis* of the scalp, I shall but briefly allude too, as these terrible diseases, if they occur upon the scalp, completely denude the skin of its hair in patches, never to return again. Fortunately, these diseases are rare, with the exception of the latter, which in diseases of the hair under the class of Alopecia, I shall have something to say to you about.

We now come to a disease of the skin, to be seen generally in the situations of the beard and moustache of the male, called *Sycosis*, from the Greek συκον, a fig, the pulp of which it resembles.

Sycosis is usually seen as an inflammatory pustular disease, invading the skin and ha r follicles of the upper lip and chin. It is a very disfiguring disease, and may occur alike to the rich or poor. I will describe shortly how it invades the hair, also the character of the parasite, its cause in most instances. As you perceive, it is a disease peculiar to adult life, and it is contagious and very prejudicial to good looks. It may also exist as a development of thin white scales, difficult to detach, and situated on a reddish ground, amongst the roots of the hair. In its pustular form, the spots are seen from the size of a mustard seed to that of a pea, and may be confined to one portion of the face, as on the upper lip, or disseminated very generally all over the hairy parts of the face, causing great disfigurement.

I have included *Warty growths* in my classification, as I so often see cases of the kind that seriously incommode the growth of the hair. They are generally regarded as hypertrophies or thickening of the papillæ of the skin. That particular kind that affects the scalp increasing rapidly in numbers, and seriously hindering the proper dressing of the hair. Sometimes they form a fringe-like process, scarcely raised above the level of the scalp.

Seborrhœa Capitis, or augmented secretion of sebaceous matter on the skin of the scalp, which the late Sir Erasmus Wilson described as stearrhœa. It forms one of the commonest varieties of scurf ; it shows itself as small yellowish crusts or plates. The skin beneath being inflamed, thickened, and the sebaceous glands (which as you know upon the scalp are very numerous) are hypertrophied. These thin plates are made of sebaceous and epithetial matter, the epithetial cells of the sebum being loaded with fat, intermingled with free grannules and cholesterine. Some-

times, when there is an excess of fat, the eruptions assume quite a yellow colour. In these instances the heat of the sun is liable to cause it, if the hat should be left off. This disease constitutes a most serious drawback to the growth of the hair, as it clogs its roots and pervades its shaft. I have seen an instance recently in which a gentleman consulted me with this affection of his scalp. He told me it came on after a sun-stroke. His hair was loaded with these small flat, yellow, oily plates, and it was coming out very fast. But with suitable treatment, like many of these eruptions of the scalp, will soon yield, and the hair resumes its natural strength and beauty.

This, gentlemen, concludes what I have to say to you about diseases of the skin affecting the growth of hair. I now turn to the diseases of the hair, and before I refer to the actual diseases to which the hair is liable, as mentioned in my classification, I must notice the characters of the several kinds of diminished formation.

Diseases of the hair may be divided into augmented and diminished growth, altered direction, and aspect.

Augmented growth may be hereditary, and vary in extent, from hairy moles to hairy men. Sometimes during the recovery from disease or injury, the skin takes upon itself an extraordinary or unusual growth; sometimes in abnormal forms of growth on the upper lip and chin of females, called hirsutes, or on the nose of both sexes.

Diminished growth may be classed as partial or general, comparative (thinning) or absolute (baldness). It may be hereditary, accidental, or normal (old age). It may be represented as—

I. *Hereditary.* 1. Partial. 2. General. This form is somewhat rare, and is seen as downy hairs, which, although they prove the presence of bulbs, are in an inactive condition.

II. *Accidental.* 1. Partial, as in ringworm and other parasitic eruptions, scars from wounds, cancer, &c. 2. General, from causes that lower the vitality, such as anæmia, fevers, gout, neuralgia, syphilis, much study, great emotions, indigestion, want of cleanliness, eruptions of the scalp, innervation, pregnancy in women, sea-onal shedding, want of nourishment, tight hats.

III. *Normal.* The loss of hair attributable to old age.

Alopecia. When the hair is quite gone from a part, this state is named alopecia or baldness. Parasitic eruptions and diseases of the hair are the usual cause of localized baldness. Syphilis, sudden and great emotions of mind, and senility produce large tracts of baldness. Total loss of hair is sometimes seen in youth. In some cases it comes out as a general thinning, by handsfull, as the saying is, until it has all come off; probably a failure of nerve force is the cause. But these forms of baldness are mostly remediable.

Localized alopecia, of which I shall have more to tell you, is

parasitic in origin, and there are certain states of the hair of the beard—sycosis—caused by parasitic growth.

Senile baldness is due to atrophy of the structures. Generally it commences on the crown of the head, the hair first turning grey; the scalp is dry, shining, loses its nourishing fat, and the follicles become obliterated. The change is usually an hereditary peculiarity; some people get bald early, some not until late in life.

General thinning of the hair is, as I have mentioned before, due to diseases interfering with its growth, and to general conditions that lower the vitality of the patient, also *splitting* of the hair, from the same causes and want of moisture.

I have mentioned before the different forms of *alopecia*, or baldness. I will now endeavour to describe them. We have:

Alopecia 1. Simplex, or simple baldness.
2. Contagious, or ringworm.
3. Parasitic; also contagious.
4. Cicatricial.

The first variety, simple alopecia, consists in a faulty secretion of the bulbs concerned in producing the hair. It occurs after violent constitutional derangements, such as fevers, long illnesses, diseases of the scalp skin. It arises commonly in the partings of the hair. The hair loses its lustre, and appears dead, and often grey, losing its colouring matter.

The next variety, *contagious alopecia*, or so-called *ringworm*,—a very bad name, as there is no worm whatever, but the disease is due to a vegetable fungus-like parasite—is found almost exclusively upon the heads of children—rarely in adult life—and generally upon the heads of children who are not in a healthy condition of body. The hair, just external to the follicle, becomes dull, broken, invested, and split up with the parasite. The cuticular layer is destroyed, and the medulla invested with pointed threads, or mycelium, following the long axis of the hair, sometimes terminating in bulbs, sometimes in clusters of minute spores about 1-7000th of an inch. The tubes are jointed in some instances, at others broken up into elongated neucleated cells. Should the disease be allowed to continue without treatment inflammation may take place, and the skin become undermined with pus cells, or matter, forming boggy masses of sores, which take long to heal, atrophy of the hair takes place, and often permanent baldness results. The ordinary forms of ringworm usually yield to treatment, I find, pretty easily.

The next variety is *Parasitic baldness*, that form which produces a patch of polished baldness, showing itself on one or more parts of the scalp; it may attack the eyebrows, beard, and may strip the whole hairy parts of the body, instances of which I have seen, and no doubt many of you have. This is due also to the ravages of a parasitic fungi of much the same character as the

last, only more minute, and it attacks adults more frequently than children. Its size is about 1-20,000 of an inch. It invades the hair in much the same manner as the last variety. The development of it is most rapid, invading the shaft of the hair, which assumes a dull, brittle, and bulbous appearance, easily splits, the root becomes atrophied, and the hair falls out in patches, soon to strip the whole scalp, if not quickly attended to.

Cicatricial baldness, that baldness produced by wounds, or diseases of the skin, such as lupus, cancer, and syphilis, I need not trouble you much with, as the form is always in small circumscribed patches, with the exception of the latter.

Syphilitic alopecia. That form of *alopecia*, due to syphilis, is pretty common, it occurs in the early part of this loathsome disease. It may then come out gradually, or may fall off in patches. There is one consolation about this kind of baldness, it can certainly and surely be cured.

With regard to the comparative ratio of baldness in the sexes I find that in a total of 60 cases, 37 occurred in the female, and 23 in the male. An excess of about a third in the relative proportion between the two sexes. I have noticed that alopecia occurs between the ages of 5 and 10 twice as frequently as at any other period of life, and an excess of the female over the male at this age. Beyond the period of adult life, a decline occurs with female until the period of change of life. Between the age of 25 and 30 the ratio of the sex is about 4 to 1—but I should like to hear what the members have to say about this.

The next disease we come to is *Favus.* I have already described to you the general characters of this disease—a yellow crusty eruption, involving both the skin of the scalp and the hair. These cup-like crusts surround the hair-roots, increasing in size in a few days to the pavi containing the yellow glazy fluid. These ulcerations destroy the hair-roots, and produce almost incurable baldness. The parasitic fungus is larger than in the preceding varieties, and causes greater destruction of the hair shaft. This parasite gets down into the deep layers of the skin, loosening the hair in its follicle, and rendering it opaque.

Parasitic Sycosis.—A disease of the hair of the beard and moustache, the fungus parasite invading the hair follicle and its epithelium, forming a well-marked fringe round its root, setting up considerable inflammation in the subjacent tissues, with considerable loss of hair; the disease I have already described to you on the skin. The spores are very small, and the filaments branch at right angles, showing a cluster of spores at the joints. The hair becomes altered in colour, grey hair becoming permeated with a brown pigmentary substance. The hair becomes matted from the discharge thrown out, and often the whole beard becomes involved in one mattery ulcerating mass.

There is also *parasitic* disease of the eyebrows and eyelids. The

fungus much the same, as the fungus of the last variety, invading the orifices of the glands, extending to the hair-roots, forming a glazey crust upon the surface. All the hairs that become involved gradually fall out.

Plica Polonica, or Polish ringworm, like ordinary ringworm, is distinguished by the swollen condition of the hair, and is distended with a reddish coloured fluid. The scalp is much diseased, bleeds at the slightest touch, and if the hair is cut it weeps and causes pain; but we do not see it often in this country, so it does not concern us much.

Trichorexis Nodosa, or *Piedra*, is a very rare disease. I myself have not seen a case in ten years' study of these diseases, but it has been described as a nodula condition of the hair, by Dr. Wilks. The hair seems to develop small hard nodules along the course of its shaft of a fibrous character.

Augmentation of hair, or *Hirsutes*, can only be regarded as an abnormality in the female sex on the face. It is a source of much trouble and annoyance to those affected. They may be removed without difficulty down to the level of the skin by means of depilatories, but they often grow again. I have a method of removing them permanently by electrollysis if the depilatory does not answer. Much care should be taken in the application of depilatories, as serious injury to the skin may result.

One of the commonest disorders of the hair is the *splitting* at its points or ends. It sometimes so happens that the hair is split into four or more threads. It arises from a disordered state of the system, debility, and diseased conditions of the skin mentioned above.

Abnormalities of the hair, such as ingrowing hair, piebald hair, deserves but brief notice, as they occur so rarely. Ingrowing hair of the eyelash is the most frequent.

I have now recapitulated the different diseases of the skin of the scalp and diseases of the hair, with, I hope, sufficient detail to render them more easily understood by you. The subject so far has been, I am afraid, somewhat dry to you. I hope for a short time to gain your interest in those matters that refer more especially to yourselves. I have told you the structure of the hair, I will now speak of the colour. The *colour* of the European races' hair is black, brown, or fair, but are dependent upon a prevailing type, for we find in the northern parts the hair is light; as we look south it gradually deepens in shade. But it depends on the amount of pigment cells diffused through the cortical substance. The colour of the hair, as a rule, harmonises with the skin and the colour of the iris. The deepest shades of black are found nearest the equator; light hair and its various shades in Europe and in our colonies; but I need not here go into the colour of the different races of the world. I will tell you that well authenticated instances are recorded of the *hair changing*

colour and becoming suddenly white, the change being rendered complete in a few hours. This can only take place through strong mental emotion, and I believe it to be caused by an acid which permeates the substance of the hair, and thus destroys the colouring matter. Instances of hereditary whiteness of hair are not often met with ; I mean by this albinos. I have seen one or two instances. The change of colour of hair, and the way it is brought about, is mere speculation at present. It may be the result of electrical action ; it may be the result of chemical decomposition. This brings me to the *chemical composition* of the hair. The hair consists in a great part of sulphur, which is soluble in alkaloids, giving off ammonia, but insoluble in acetic acid, on boiling which distinguishes it from horn. It may be reduced by ultimate analysis to ashes, containing oxide of iron and manganese; in white hair to phosphate of magnesia and sulphate of alumina.

Climatic Influence.—It is a well known fact that hair is influenced by a moist or dry state of the atmosphere, and elongates or shortens according to one or other of these conditions. Heat and cold also influence it as to its colour, cold producing blanching and heat darkening it. This brings me to the subject of *greyness*. There is much diversity of opinion as to the time of the appearance of the first grey hair, and it depends upon a variety of causes. In most instances grey hairs make their appearance singly, and the blanching begins at the roots, and when the hair is cut this is always the more evident. How is this ?

We know that the colouring matter is carried up the shaft of the hair from the papilla at its root. The outer layers of the hair then must undergo changes, instead of the light being reflected they penetrate the coverings and we have the frosted appearance. The loss of colour is then due to absence of colouring matter, commencing from its papilla, which takes place as the process of decay takes place in the papilla, and so we have greyness and baldness taking place side by side. This greyness generally begins at the temples or sides of the head, spreading gradually over the whole scalp. Men do not become grey usually until they are forty. We see sometimes grey patches in hair or beard; these are due generally to some local cause, neuralgia or parasitic diseases. As I have said before, *sudden greyness* usually takes place from sudden fright. Numerous instances we read of. I have seen several instances of this. It is well known that the hair has an *electrical property*. Hence we have opportunity of observing sparkles or electric crackling in the brushing of some hair, especially under the influence of neuralgia. In some instances this is so marked that each hair will stand out by itself in this condition. Of *Baldness* and its cause-- I have already related to you its causes. The natural fall in age cannot be rectified, but sometimes the fall takes place in the young ; it becomes then a serious evil, and if in the female a grave misfortune, a "*wig* but ill

supplies the place of nature's foliage, and a pencilled eyebrow looks fairly well on the stage." But worst of all when it falls off in circumscribed round patches. Fortunately most of these latter forms of baldness are curable. We now come to the important part of the subject, the primary treatment of the hair in disease and in health, viz., the *Dressing*, *Cutting*, *Brushing*, and *Washing*.

Dressing. We must bear in mind that beauty in the hair must have an appearance of utility. It is not beauty that has a look of encumbrance, tightness, obstruction, or undue weight. The hair should be arranged in such a manner as to look as ornamental and as natural as possible, and to suit individual wants, not always to follow the absurd dictates of fashion. In women especially this applies. How grotesque some of the methods of the dressing of the hair in the different periods of time have been. Those of us who had opportunity must have noticed this in the costumes of the periods of different times at the International Health Exhibition. The diagram before you illustrates the present absurd fashion of tightening the hair up to the scalp in close plaits and curled fringe, besides looking unnatural, it is very detrimental to the growth, as you, no doubt, will admit. Women who wish to retain a good head of hair should avoid pads, tight plaits, and heavy head-dresses as much as possible. The hair should be loosened, especially at night, combed, and brushed gently, and gathered up loosely in a net at night.

The practice of men who wear hats without ventilation is a bad one. All hats should be well ventilated, and worn only when necessity requires. Look at the blue-coat boys what strong hair they get who wear no hats at all.

Now as to the question of *cutting*, I am convinced that cutting, and cutting the hair tolerably frequently, is beneficial to its growth, both in the male and female, but they should be guided by their own personal appearance; short hair suits some men but not others. Women still have the privilege of wearing their hair its natural length, and what is more beautiful in woman than long hair; not cut close, as I have seen so many young ladies have it lately. But the hair is apt to split at its ends even with them, and requires, for health's sake, occasional cutting, and in certain instances much improves its growth. I know I am opposed in this view by many, but I am convinced all the same it is beneficial to its growth, especially in some forms of weakness. The operation in women is really one of trimming—in the men of *cutting*.

Brushing As a general rule the scalp cannot be too much brushed. The more the head be brushed, the more healthy will be the skin and its functions—that of production and maintenance of the hair. But care should be taken in the selection of brushes. Avoid irritating the skin by hard brushes, and tearing the hair out, especially by hard brushes on the machine brush so much in vogue in the present day. As a general rule it is best to comb and brush the

hair two or three times every day with a moderately soft brush.

Washing. Great benefit to the hair is to be derived from *washing* the head two or three times a week, not oftener. It was stated in a medical journal a week or so back, that a sure prevention of ringworm in children's heads was to wash the head daily. I am convinced this is not good ; it is more likely to favour the growth of the parasite, which feeds upon moisture. Neither is it beneficial to a healthy growth, especially with cold water. Strong soaps are not good, either, for washing purposes. That soap that contains a fair amount of glycerine and soda seems best for cleansing and promoting healthy growth ; a little bicarbonate of soda added to the water is also a valuable aid.

Now with regard to *dyeing* the hair. Whatever doctors or others may preach, nothing will prevent people from dyeing the hair, and I see no reason why it should not be so in many instances ; but the greatest care should be taken in the selection of dyes ; there are some dyes that are especially injurious, especially those that contain lead. I have seen disastrous effects produced when lead dyes become absorbed by the skin, and staining of the whole skin when silver is absorbed by being improperly applied ; but I dare say you can tell me more about this than I can you. I place more confidence in vegetable dyes myself, such as walnut, &c. ; but I know of several mineral dyes, if properly and carefully applied, are perfectly harmless. What are we to say to those who come to us for advice, whose hair has turned prematurely grey ? It is nonsense to say you must not use dye. The grey hairs of age ought by all right-minded persons to be held in honour, and it is a pity to alter them.

I do not think either it is a good plan to *singe* hair, especially if it is thin or falling off. It is far better to cut, and so promote the flow of sap.

I may as well, before I close this part of my lecture, enumerate a few things that are destructive to the hair. Profuse perspiration of the scalp, neglect in cutting at regular intervals, the use of overheated curling-irons, harsh curl-papers, and the use of tooth combs.

I now come to restoratives and cosmetics. Their name is legion. Amongst those derived from the animal world may be named :

The fat or marrow of the bear, deer, goose, hedgehog, mole, and snake. Cantharides (or Spanish fly), honey, bees-wax. Ashes of hair, hedgehog, mice, goats' hair, bees and wasps.

Those from the vegetable :

Resins.—Amber, benzoin, frankincense, opium, mastick, myrrh, pine, balsam of Peru, tar, and turpentine.

Oils.—Bays, spikenard, rosemary.

Roots.—Cyclaman, white lily, onion, squill.

Barks.—Box leaves, camomile flowers, cinchona bark, dock, fig leaves, rosemary, worm-wood, jaborandi leaves, &c.

Of the mineral kingdom,—Sulphur and paraffin.

We see by the above list the greater part are stimulants, some nutritives, such as the fats. Bear's grease is the commonest fat used, but many oils are useful, such as cocoa-nut and petroleum. Of the stimulants, rosemary, balsam of Peru, turpentine, cantharides, and jaborandi, are amongst the best.

With regard to Treatment. The whole secret of success lies in recognising the cause of the disease and knowing it when we see it. You must agree with me, this is the work of the doctor. For instances in cases of total loss, constitutional diseases must be sought out and remedied, such as syphilis, gout, and debility, he cannot treat patients with specifics for these diseases, but on general principles. Then we have those local diseases of the hair due to parasites which require separate and definite treatment. All the ointments in the world will not cure these unless the system is also treated. In case of loss from trouble, then stimulation comes to our aid, I mean local stimulation, wherever the small downy hair shows itself, if these are not evident and the part is shining and white, not much can be done. I certainly have brought the hair back in some instances. Shaving a downy haired scalp is also beneficial. In cases of thinning where the skin is disordered, scurfy, we must endeavour to get rid of thus, by gentle washings and frictions, galvanism, &c. Certain pomades then do good ; pomades in some instances, washes in others.

False Hair. In the shape of wigs or plaits is so beautifully made, now I can understand that baldness is not so serious a matter as it used to be. As you are aware, hair is brought, from all parts of the world of various hues. Let me here urge upon those who supply it, great care as to its keeping and applying, as contagious diseases of the hair are so often carried by people trying on hair, or by the use of the brush or comb that has been used by the person affected, mere washing will not destroy the parasite often.

With regard to the growth of hair after death,* and the fabulous tales of greyness, &c., we have most of us read, but few have seldom seen.

At the conclusion of the lecture, which was illustrated by a number of coloured sketches showing the appearance of the various diseases described, the lecturer was much applauded.

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* The hair *must* very nearly approach to the vegetable kingdom, as this peculiar character of growth shows its life in decayed matter.

17, Sackville Street, Piccadilly, W.
March, 1885.